



RiverOak Strategic Partners

5.2- 21

**Environmental Statement
Volume 21: Transport
Assessment, Appendix F
(Junctions 20 A to 20 B)**

TR020002/APP/5.2-21

Project Name:

Manston Airport Development Consent Order

Regulation:

Regulation 5(2)(q) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
Regulations 2009, as amended

Date:

July 2018



Volume 21 Contents

**Transport Assessment Appendix F - 2039 Validated Models
(Junctions 20A_a to 20B_c)**

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 20A.1,2,3_Validated_AM.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 20A.1, 20A.2, 20A.3 and 20B

Report generation date: 31/01/2018 13:13:10

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- »Junctions 9 - 2017 Baseline Traffic, AM
 - »Junctions 9 - 2017 Baseline Traffic, PM
 - »Junctions 9 - 2017 Baseline Traffic, Airport Peak
 - »Junctions 9 - 2039 Growthed Traffic, AM
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 - »Junctions 9 - 2039 + Dev Traffic, AM
 - »Junctions 9 - 2039 + Dev Traffic, PM
 - »Junctions 9 - 2039 + Dev Traffic, Airport Peak
 - »Junctions 9 - 2039 B+Dev Net Change, AM
 - »Junctions 9 - 2039 B+Dev Net Change, PM
 - »Junctions 9 - 2039 B+Dev Net Change, Airport Peak

Summary of junction performance

	AM					PM					Airport Peak				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
Junctions 9 - 2017 Baseline Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.3	0.13	0.23	A	-5 %	0.5	0.15	0.34	A	-7 %	0.4	0.14	0.30	A	7 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]
20A12 - Junction 20A.1&2 - Stream B-AC	8.7	0.88	0.92	F		3.8	0.47	0.80	D		2.2	0.28	0.69	C	
20A12 - Junction 20A.1&2 - Stream C-AB	4.0	0.69	0.82	E		5.5	1.00	0.87	F		2.1	0.41	0.69	C	
Junctions 9 - 2039 Growthed Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.14	0.30	A	-24 %	0.8	0.18	0.45	B	-26 %	0.7	0.17	0.42	B	-20 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]
20A12 - Junction 20A.1&2 - Stream B-AC	102.0	8.57	1.30	F		61.6	5.42	1.21	F		34.1	2.95	1.08	F	
20A12 - Junction 20A.1&2 - Stream C-AB	49.2	5.70	1.22	F		75.4	10.42	1.43	F		36.0	3.69	1.15	F	
Junctions 9 - 2039 + Dev Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.15	0.30	A	-27 %	0.8	0.18	0.45	B	-29 %	0.7	0.17	0.42	B	-22 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]
20A12 - Junction 20A.1&2 - Stream B-AC	131.1	11.39	1.39	F		64.1	5.62	1.22	F		57.9	4.70	1.17	F	
20A12 - Junction 20A.1&2 - Stream C-AB	57.0	7.00	1.27	F		147.8	17.45	1.55	F		47.0	5.45	1.22	F	
Junctions 9 - 2039 B+Dev Net Change															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.15	0.30	A	-24 %	0.8	0.18	0.45	B	-26 %	0.7	0.17	0.42	B	-18 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream C-AB]
20A12 - Junction 20A.1&2 - Stream B-AC	104.3	8.48	1.29	F		46.8	4.04	1.14	F		40.7	3.29	1.10	F	
20A12 - Junction 20A.1&2 - Stream C-AB	37.5	3.74	1.14	F		78.6	10.28	1.40	F		30.9	2.81	1.12	F	

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

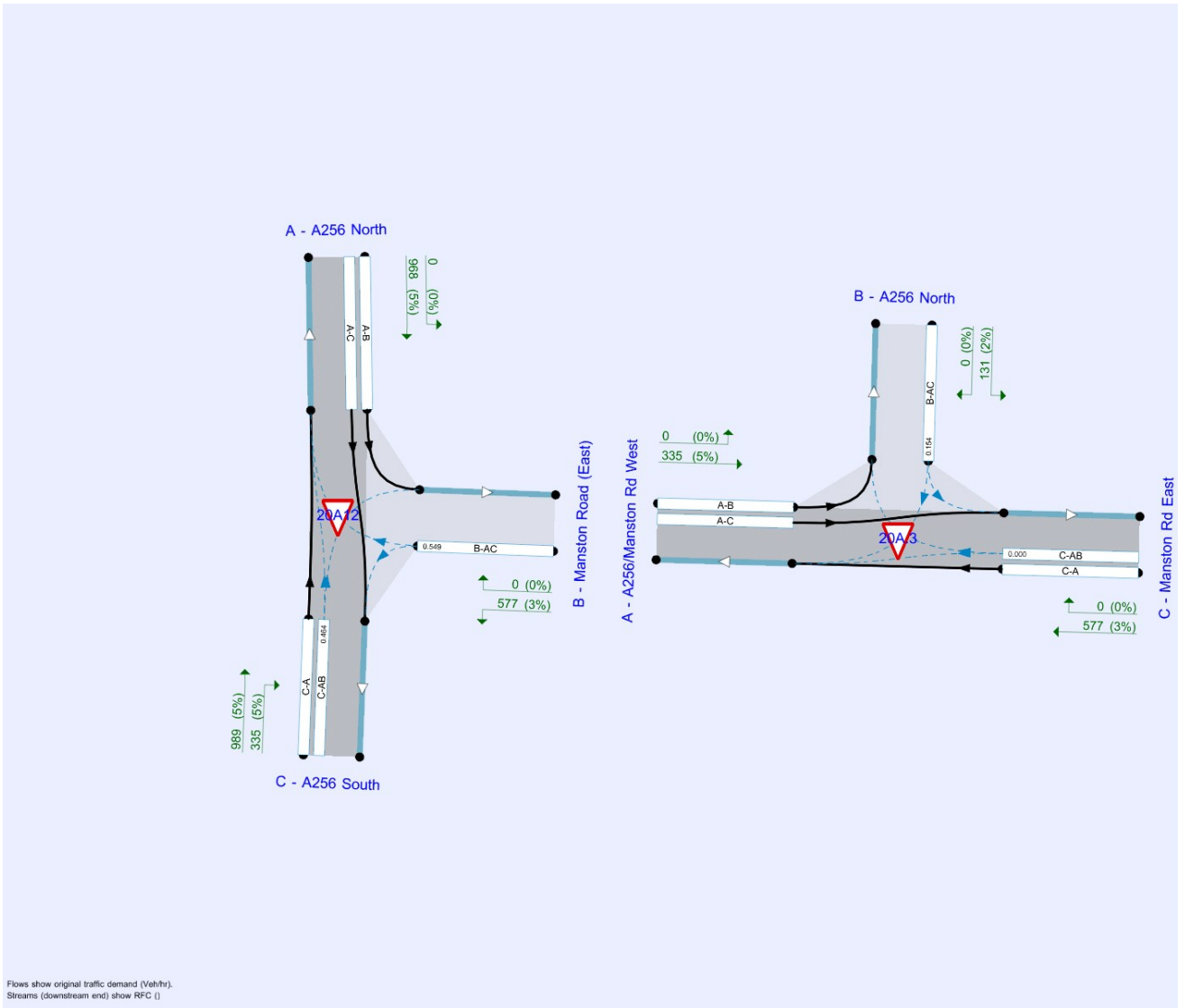
File summary

File Description

Title	Junction 20B
Location	A256 - Manston Rd West
Site number	20B
Date	04/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\jessica.elliott
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	mph	Veh	Veh	perHour	min	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75			✓	Delay	0.85	0.60	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
D3	2017 Baseline Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D6	2039 Growthed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D9	2039 + Dev Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D12	2039 B+Dev Net Change	AM	ONE HOUR	07:30	09:00	15	✓
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	15	✓
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	Junctions 9	✓	100.000	100.000

Junctions 9 - 2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.25	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	20A12 - Junction 20A.1&2 - Stream B-AC

Arms

Arms

Junction	Arm	Name	Description	Arm type
20A.3 - Junction 20A.3	A	A256/Manston Rd West		Major
	B	A256 North		Minor
	C	Manston Rd East		Major
20A12 - Junction 20A.1&2	A	A256 North		Major
	B	Manston Road (East)		Minor
	C	A256 South		Major

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
20A.3 - Junction 20A.3	C - Manston Rd East	11.72					0.0	✓	0.00
20A12 - Junction 20A.1&2	C - A256 South	8.21	✓	7.19	✓	4.24	110.0	✓	80.00

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

Minor Arm Geometry

Junction	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
20A.3 - Junction 20A.3	B - A256 North	One lane	3.79	0	48
20A12 - Junction 20A.1&2	B - Manston Road (East)	One lane	5.00	40	120

Slope / Intercept / Capacity

Stream Intercept Adjustments

Junction	Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
20A.3 - Junction 20A.3	B-AC			
20A12 - Junction 20A.1&2	B-AC	✓		200

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
20A12	B-A	766	0.109	0.275	0.173	0.392
20A12	B-C	840	0.116	0.294	-	-
20A12	C-B	779	0.273	0.273	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
20A.3	B-A	541	0.074	0.187	0.118	0.267
20A.3	B-C	706	0.081	0.205	-	-
20A.3	C-B	574	0.167	0.167	-	-

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
D3	2017 Baseline Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	335	100.000
	B - A256 North		ONE HOUR	✓	131	100.000
	C - Manston Rd East		ONE HOUR	✓	577	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	968	100.000
	B - Manston Road (East)		ONE HOUR	✓	577	100.000
	C - A256 South		ONE HOUR	✓	1324	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	968
	B - Manston Road (East)	0	0	577
	C - A256 South	989	335	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	335
	B - A256 North	0	0	131
	C - Manston Rd East	577	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.23	0.13	0.3	A	120	180
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					529	794
	A-B					0	0
	A-C					307	461
20A12 - Junction 20A.1&2	B-AC	0.92	0.88	8.7	F	529	794
	C-AB	0.82	0.69	4.0	E	307	461
	C-A					908	1361
	A-B					0	0
	A-C					888	1332

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	99	25	639	0.154	98	0.0	0.2	0.111	A
	C-AB	0	0	522	0.000	0	0.0	0.0	0.000	A
	C-A	434	109			434				
	A-B	0	0			0				
	A-C	252	63			252				
20A12 - Junction 20A.1&2	B-AC	434	109	791	0.549	430	0.0	1.2	0.164	A
	C-AB	252	63	543	0.464	249	0.0	0.8	0.202	B
	C-A	745	186			745				
	A-B	0	0			0				
	A-C	729	182			729				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	118	29	628	0.187	118	0.2	0.2	0.117	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	519	130			519				
	A-B	0	0			0				
	A-C	301	75			301				
20A12 - Junction 20A.1&2	B-AC	519	130	748	0.693	515	1.2	2.1	0.253	C
	C-AB	301	75	505	0.597	299	0.8	1.4	0.288	C
	C-A	889	222			889				
	A-B	0	0			0				
	A-C	870	218			870				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	144	36	614	0.235	144	0.2	0.3	0.128	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	635	159			635				
	A-B	0	0			0				
	A-C	369	92			369				
20A12 - Junction 20A.1&2	B-AC	635	159	690	0.921	614	2.1	7.4	0.664	E
	C-AB	369	92	451	0.817	360	1.4	3.7	0.603	E
	C-A	1089	272			1089				
	A-B	0	0			0				
	A-C	1066	266			1066				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	144	36	614	0.235	144	0.3	0.3	0.128	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	635	159			635				
	A-B	0	0			0				
	A-C	369	92			369				
20A12 - Junction 20A.1&2	B-AC	635	159	690	0.921	630	7.4	8.7	0.878	F
	C-AB	369	92	451	0.817	368	3.7	4.0	0.692	E
	C-A	1089	272			1089				
	A-B	0	0			0				
	A-C	1066	266			1066				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	118	29	628	0.187	118	0.3	0.2	0.118	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	519	130			519				
	A-B	0	0			0				
	A-C	301	75			301				
20A12 - Junction 20A.1&2	B-AC	519	130	748	0.693	544	8.7	2.4	0.325	C
	C-AB	301	75	505	0.597	311	4.0	1.5	0.324	C
	C-A	889	222			889				
	A-B	0	0			0				
	A-C	870	218			870				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	99	25	639	0.154	99	0.2	0.2	0.111	A
	C-AB	0	0	522	0.000	0	0.0	0.0	0.000	A
	C-A	434	109			434				
	A-B	0	0			0				
	A-C	252	63			252				
20A12 - Junction 20A.1&2	B-AC	434	109	791	0.549	439	2.4	1.2	0.173	B
	C-AB	252	63	543	0.464	255	1.5	0.9	0.210	B
	C-A	745	186			745				
	A-B	0	0			0				
	A-C	729	182			729				

Junctions 9 - 2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.19	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	20A12 - Junction 20A.1&2 - Stream C-AB

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	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	325	100.000
	B - A256 North		ONE HOUR	✓	194	100.000
	C - Manston Rd East		ONE HOUR	✓	463	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1191	100.000
	B - Manston Road (East)		ONE HOUR	✓	463	100.000
	C - A256 South		ONE HOUR	✓	1245	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1191
	B - Manston Road (East)	0	0	463
	C - A256 South	920	325	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	325
	B - A256 North	0	0	194
	C - Manston Rd East	463	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.34	0.15	0.5	A	178	267
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					425	637
	A-B					0	0
	A-C					298	447
20A12 - Junction 20A.1&2	B-AC	0.80	0.47	3.8	D	425	637
	C-AB	0.87	1.00	5.5	F	298	447
	C-A					844	1266
	A-B					0	0
	A-C					1093	1639

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	146	37	642	0.227	145	0.0	0.3	0.120	A
	C-AB	0	0	527	0.000	0	0.0	0.0	0.000	A
	C-A	349	87			349				
	A-B	0	0			0				
	A-C	245	61			245				
20A12 - Junction 20A.1&2	B-AC	349	87	756	0.461	345	0.0	0.8	0.145	A
	C-AB	245	61	524	0.467	241	0.0	0.9	0.210	B
	C-A	693	173			693				
	A-B	0	0			0				
	A-C	897	224			897				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	174	44	633	0.276	174	0.3	0.4	0.131	A
	C-AB	0	0	519	0.000	0	0.0	0.0	0.000	A
	C-A	416	104			416				
	A-B	0	0			0				
	A-C	292	73			292				
20A12 - Junction 20A.1&2	B-AC	416	104	704	0.591	414	0.8	1.4	0.205	B
	C-AB	292	73	476	0.613	290	0.9	1.5	0.317	C
	C-A	827	207			827				
	A-B	0	0			0				
	A-C	1071	268			1071				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	214	53	619	0.345	213	0.4	0.5	0.147	A
	C-AB	0	0	509	0.000	0	0.0	0.0	0.000	A
	C-A	510	127			510				
	A-B	0	0			0				
	A-C	358	89			358				
20A12 - Junction 20A.1&2	B-AC	510	127	634	0.805	501	1.4	3.6	0.426	D
	C-AB	358	89	410	0.872	345	1.5	4.8	0.793	E
	C-A	1013	253			1013				
	A-B	0	0			0				
	A-C	1311	328			1311				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	214	53	619	0.345	214	0.5	0.5	0.148	A
	C-AB	0	0	509	0.000	0	0.0	0.0	0.000	A
	C-A	510	127			510				
	A-B	0	0			0				
	A-C	358	89			358				
20A12 - Junction 20A.1&2	B-AC	510	127	634	0.805	509	3.6	3.8	0.473	D
	C-AB	358	89	410	0.872	355	4.8	5.5	0.996	F
	C-A	1013	253			1013				
	A-B	0	0			0				
	A-C	1311	328			1311				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	174	44	633	0.276	175	0.5	0.4	0.131	A
	C-AB	0	0	519	0.000	0	0.0	0.0	0.000	A
	C-A	416	104			416				
	A-B	0	0			0				
	A-C	292	73			292				
20A12 - Junction 20A.1&2	B-AC	416	104	704	0.591	426	3.8	1.5	0.222	B
	C-AB	292	73	476	0.613	308	5.5	1.7	0.383	C
	C-A	827	207			827				
	A-B	0	0			0				
	A-C	1071	268			1071				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	146	37	642	0.227	146	0.4	0.3	0.121	A
	C-AB	0	0	527	0.000	0	0.0	0.0	0.000	A
	C-A	349	87			349				
	A-B	0	0			0				
	A-C	245	61			245				
20A12 - Junction 20A.1&2	B-AC	349	87	756	0.461	351	1.5	0.9	0.149	A
	C-AB	245	61	524	0.467	248	1.7	0.9	0.219	B
	C-A	693	173			693				
	A-B	0	0			0				
	A-C	897	224			897				

Junctions 9 - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.10	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	20A12 - Junction 20A.1&2 - Stream C-AB

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	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	294	100.000
	B - A256 North		ONE HOUR	✓	169	100.000
	C - Manston Rd East		ONE HOUR	✓	443	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	924	100.000
	B - Manston Road (East)		ONE HOUR	✓	443	100.000
	C - A256 South		ONE HOUR	✓	961	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	924
	B - Manston Road (East)	0	0	443
	C - A256 South	667	294	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	294
	B - A256 North	0	0	169
	C - Manston Rd East	443	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.14	0.4	A	155	233
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					407	610
	A-B					0	0
	A-C					270	405
20A12 - Junction 20A.1&2	B-AC	0.69	0.28	2.2	C	407	610
	C-AB	0.69	0.41	2.1	C	270	405
	C-A					612	918
	A-B					0	0
	A-C					848	1272

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	127	32	639	0.199	126	0.0	0.2	0.117	A
	C-AB	0	0	528	0.000	0	0.0	0.0	0.000	A
	C-A	334	83			334				
	A-B	0	0			0				
	A-C	221	55			221				
20A12 - Junction 20A.1&2	B-AC	334	83	801	0.416	331	0.0	0.7	0.127	A
	C-AB	221	55	558	0.397	219	0.0	0.6	0.176	B
	C-A	502	126			502				
	A-B	0	0			0				
	A-C	696	174			696				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	152	38	631	0.241	152	0.2	0.3	0.125	A
	C-AB	0	0	520	0.000	0	0.0	0.0	0.000	A
	C-A	398	100			398				
	A-B	0	0			0				
	A-C	264	66			264				
20A12 - Junction 20A.1&2	B-AC	398	100	760	0.524	397	0.7	1.1	0.164	A
	C-AB	264	66	520	0.508	263	0.6	1.0	0.232	B
	C-A	600	150			600				
	A-B	0	0			0				
	A-C	831	208			831				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	186	47	618	0.301	186	0.3	0.4	0.139	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	488	122			488				
	A-B	0	0			0				
	A-C	324	81			324				
20A12 - Junction 20A.1&2	B-AC	488	122	704	0.692	484	1.1	2.1	0.267	C
	C-AB	324	81	469	0.690	319	1.0	2.1	0.390	C
	C-A	734	184			734				
	A-B	0	0			0				
	A-C	1017	254			1017				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	186	47	618	0.301	186	0.4	0.4	0.139	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	488	122			488				
	A-B	0	0			0				
	A-C	324	81			324				
20A12 - Junction 20A.1&2	B-AC	488	122	704	0.692	488	2.1	2.2	0.276	C
	C-AB	324	81	469	0.690	323	2.1	2.1	0.410	C
	C-A	734	184			734				
	A-B	0	0			0				
	A-C	1017	254			1017				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	152	38	631	0.241	152	0.4	0.3	0.126	A
	C-AB	0	0	520	0.000	0	0.0	0.0	0.000	A
	C-A	398	100			398				
	A-B	0	0			0				
	A-C	264	66			264				
20A12 - Junction 20A.1&2	B-AC	398	100	760	0.524	403	2.2	1.1	0.170	B
	C-AB	264	66	520	0.508	269	2.1	1.1	0.242	B
	C-A	600	150			600				
	A-B	0	0			0				
	A-C	831	208			831				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	127	32	639	0.199	128	0.3	0.3	0.117	A
	C-AB	0	0	528	0.000	0	0.0	0.0	0.000	A
	C-A	334	83			334				
	A-B	0	0			0				
	A-C	221	55			221				
20A12 - Junction 20A.1&2	B-AC	334	83	801	0.416	335	1.1	0.7	0.129	A
	C-AB	221	55	558	0.397	223	1.1	0.7	0.180	B
	C-A	502	126			502				
	A-B	0	0			0				
	A-C	696	174			696				

Junctions 9 - 2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	3.15	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 Growthed Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	419	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	721	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1211	100.000
	B - Manston Road (East)		ONE HOUR	✓	721	100.000
	C - A256 South		ONE HOUR	✓	1662	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1211
	B - Manston Road (East)	0	0	721
	C - A256 South	1243	419	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	419
	B - A256 North	0	0	164
	C - Manston Rd East	721	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.14	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					662	992
	A-B					0	0
	A-C					384	577
20A12 - Junction 20A.1&2	B-AC	1.30	8.57	102.0	F	662	992
	C-AB	1.22	5.70	49.2	F	841	1261
	C-A					684	1027
	A-B					0	0
	A-C					1111	1667

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.197	122	0.0	0.2	0.119	A
	C-AB	0	0	511	0.000	0	0.0	0.0	0.000	A
	C-A	543	136			543				
	A-B	0	0			0				
	A-C	315	79			315				
20A12 - Junction 20A.1&2	B-AC	543	136	736	0.738	532	0.0	2.6	0.282	C
	C-AB	315	79	493	0.639	309	0.0	1.7	0.315	C
	C-A	936	234			936				
	A-B	0	0			0				
	A-C	912	228			912				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	612	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	648	162			648				
	A-B	0	0			0				
	A-C	377	94			377				
20A12 - Junction 20A.1&2	B-AC	648	162	683	0.949	623	2.6	9.0	0.780	E
	C-AB	377	94	445	0.846	366	1.7	4.3	0.685	E
	C-A	1117	279			1117				
	A-B	0	0			0				
	A-C	1089	272			1089				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	594	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	486	0.000	0	0.0	0.0	0.000	A
	C-A	794	198			794				
	A-B	0	0			0				
	A-C	461	115			461				
20A12 - Junction 20A.1&2	B-AC	794	198	610	1.302	606	9.0	55.9	3.461	F
	C-AB	1830	457	1500	1.220	1738	4.3	27.2	2.007	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1333	333			1333				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	594	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	486	0.000	0	0.0	0.0	0.000	A
	C-A	794	198			794				
	A-B	0	0			0				
	A-C	461	115			461				
20A12 - Junction 20A.1&2	B-AC	794	198	610	1.302	609	55.9	102.0	7.669	F
	C-AB	1830	457	1500	1.220	1742	27.2	49.2	4.188	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1333	333			1333				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	612	0.241	148	0.4	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	648	162			648				
	A-B	0	0			0				
	A-C	377	94			377				
20A12 - Junction 20A.1&2	B-AC	648	162	683	0.949	676	102.0	95.0	8.566	F
	C-AB	377	94	445	0.846	445	49.2	32.1	5.704	F
	C-A	1117	279			1117				
	A-B	0	0			0				
	A-C	1089	272			1089				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.197	124	0.3	0.2	0.120	A
	C-AB	0	0	511	0.000	0	0.0	0.0	0.000	A
	C-A	543	136			543				
	A-B	0	0			0				
	A-C	315	79			315				
20A12 - Junction 20A.1&2	B-AC	543	136	736	0.738	728	95.0	48.6	5.957	F
	C-AB	315	79	493	0.639	436	32.1	2.0	1.822	F
	C-A	936	234			936				
	A-B	0	0			0				
	A-C	912	228			912				

Junctions 9 - 2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	3.35	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	409	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	584	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1501	100.000
	B - Manston Road (East)		ONE HOUR	✓	584	100.000
	C - A256 South		ONE HOUR	✓	1568	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1501
	B - Manston Road (East)	0	0	584
	C - A256 South	1159	409	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	409
	B - A256 North	0	0	244
	C - Manston Rd East	584	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					536	804
	A-B					0	0
	A-C					375	563
20A12 - Junction 20A.1&2	B-AC	1.21	5.42	61.6	F	536	804
	C-AB	1.43	10.42	75.4	F	801	1201
	C-A					638	957
	A-B					0	0
	A-C					1377	2066

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	629	0.292	182	0.0	0.4	0.134	A
	C-AB	0	0	517	0.000	0	0.0	0.0	0.000	A
	C-A	440	110			440				
	A-B	0	0			0				
	A-C	308	77			308				
20A12 - Junction 20A.1&2	B-AC	440	110	687	0.640	433	0.0	1.7	0.230	B
	C-AB	308	77	460	0.669	300	0.0	1.9	0.361	C
	C-A	873	218			873				
	A-B	0	0			0				
	A-C	1130	283			1130				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	617	0.355	219	0.4	0.5	0.150	A
	C-AB	0	0	507	0.000	0	0.0	0.0	0.000	A
	C-A	525	131			525				
	A-B	0	0			0				
	A-C	368	92			368				
20A12 - Junction 20A.1&2	B-AC	525	131	622	0.843	514	1.7	4.4	0.508	D
	C-AB	369	92	401	0.920	352	1.9	6.2	0.978	F
	C-A	1041	260			1041				
	A-B	0	0			0				
	A-C	1349	337			1349				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	600	0.447	268	0.5	0.8	0.180	B
	C-AB	0	0	493	0.000	0	0.0	0.0	0.000	A
	C-A	643	161			643				
	A-B	0	0			0				
	A-C	450	113			450				
20A12 - Junction 20A.1&2	B-AC	643	161	533	1.206	525	4.4	33.9	2.494	F
	C-AB	1726	432	1210	1.427	1588	6.2	40.9	3.645	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1653	413			1653				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	600	0.447	269	0.8	0.8	0.181	B
	C-AB	0	0	493	0.000	0	0.0	0.0	0.000	A
	C-A	643	161			643				
	A-B	0	0			0				
	A-C	450	113			450				
20A12 - Junction 20A.1&2	B-AC	643	161	533	1.206	532	33.9	61.6	5.419	F
	C-AB	1726	432	1212	1.425	1589	40.9	75.2	8.620	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1653	413			1653				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	617	0.355	220	0.8	0.6	0.152	A
	C-AB	0	0	507	0.000	0	0.0	0.0	0.000	A
	C-A	525	131			525				
	A-B	0	0			0				
	A-C	368	92			368				
20A12 - Junction 20A.1&2	B-AC	525	131	622	0.843	612	61.6	39.8	4.953	F
	C-AB	369	92	401	0.915	401	75.2	67.2	10.416	F
	C-A	1041	260			1041				
	A-B	0	0			0				
	A-C	1349	337			1349				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	629	0.292	184	0.6	0.4	0.135	A
	C-AB	0	0	517	0.000	0	0.0	0.0	0.000	A
	C-A	440	110			440				
	A-B	0	0			0				
	A-C	308	77			308				
20A12 - Junction 20A.1&2	B-AC	440	110	687	0.640	591	39.8	2.0	1.348	F
	C-AB	308	77	460	0.669	460	67.2	29.2	6.568	F
	C-A	873	218			873				
	A-B	0	0			0				
	A-C	1130	283			1130				

Junctions 9 - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	1.44	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-20	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	392	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	591	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1234	100.000
	B - Manston Road (East)		ONE HOUR	✓	591	100.000
	C - A256 South		ONE HOUR	✓	1283	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1234
	B - Manston Road (East)	0	0	591
	C - A256 South	891	392	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	392
	B - A256 North	0	0	225
	C - Manston Rd East	591	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					542	813
	A-B					0	0
	A-C					360	540
20A12 - Junction 20A.1&2	B-AC	1.08	2.95	34.1	F	542	813
	C-AB	1.15	3.69	36.0	F	687	1030
	C-A					491	736
	A-B					0	0
	A-C					1132	1699

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	624	0.271	168	0.0	0.4	0.131	A
	C-AB	0	0	515	0.000	0	0.0	0.0	0.000	A
	C-A	445	111			445				
	A-B	0	0			0				
	A-C	295	74			295				
20A12 - Junction 20A.1&2	B-AC	445	111	731	0.609	439	0.0	1.5	0.202	B
	C-AB	295	74	493	0.598	289	0.0	1.4	0.287	C
	C-A	671	168			671				
	A-B	0	0			0				
	A-C	929	232			929				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	612	0.330	202	0.4	0.5	0.146	A
	C-AB	0	0	505	0.000	0	0.0	0.0	0.000	A
	C-A	531	133			531				
	A-B	0	0			0				
	A-C	352	88			352				
20A12 - Junction 20A.1&2	B-AC	531	133	677	0.785	524	1.5	3.3	0.376	C
	C-AB	352	88	444	0.794	345	1.4	3.3	0.569	D
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1109	277			1109				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	596	0.416	247	0.5	0.7	0.172	B
	C-AB	0	0	492	0.000	0	0.0	0.0	0.000	A
	C-A	651	163			651				
	A-B	0	0			0				
	A-C	432	108			432				
20A12 - Junction 20A.1&2	B-AC	651	163	602	1.081	582	3.3	20.5	1.524	F
	C-AB	1413	353	1224	1.154	1344	3.3	20.4	1.576	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1359	340			1359				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	596	0.416	248	0.7	0.7	0.172	B
	C-AB	0	0	492	0.000	0	0.0	0.0	0.000	A
	C-A	651	163			651				
	A-B	0	0			0				
	A-C	432	108			432				
20A12 - Junction 20A.1&2	B-AC	651	163	602	1.081	596	20.5	34.1	2.952	F
	C-AB	1413	353	1227	1.151	1351	20.4	35.9	2.946	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1359	340			1359				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	612	0.330	203	0.7	0.5	0.147	A
	C-AB	0	0	505	0.000	0	0.0	0.0	0.000	A
	C-A	531	133			531				
	A-B	0	0			0				
	A-C	352	88			352				
20A12 - Junction 20A.1&2	B-AC	531	133	677	0.785	647	34.1	5.0	1.854	F
	C-AB	352	88	446	0.786	444	35.9	13.1	3.695	F
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1109	277			1109				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	624	0.271	170	0.5	0.4	0.132	A
	C-AB	0	0	515	0.000	0	0.0	0.0	0.000	A
	C-A	445	111			445				
	A-B	0	0			0				
	A-C	295	74			295				
20A12 - Junction 20A.1&2	B-AC	445	111	731	0.609	459	5.0	1.6	0.231	B
	C-AB	295	74	493	0.598	341	13.1	1.6	0.505	D
	C-A	671	168			671				
	A-B	0	0			0				
	A-C	929	232			929				

Junctions 9 - 2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	4.07	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-27	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 + Dev Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	424	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	754	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1244	100.000
	B - Manston Road (East)		ONE HOUR	✓	754	100.000
	C - A256 South		ONE HOUR	✓	1671	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1244
	B - Manston Road (East)	0	0	754
	C - A256 South	1247	424	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	424
	B - A256 North	0	0	164
	C - Manston Rd East	754	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.15	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					692	1038
	A-B					0	0
	A-C					389	584
20A12 - Junction 20A.1&2	B-AC	1.39	11.39	131.1	F	692	1038
	C-AB	1.27	7.00	57.0	F	847	1270
	C-A					687	1030
	A-B					0	0
	A-C					1142	1712

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	122	0.0	0.2	0.119	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	729	0.779	555	0.0	3.2	0.325	C
	C-AB	319	80	487	0.656	312	0.0	1.8	0.332	C
	C-A	939	235			939				
	A-B	0	0			0				
	A-C	937	234			937				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	674	1.006	637	3.2	13.5	1.058	F
	C-AB	381	95	437	0.872	369	1.8	4.9	0.767	E
	C-A	1121	280			1121				
	A-B	0	0			0				
	A-C	1118	280			1118				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	599	1.387	597	13.5	71.8	4.520	F
	C-AB	1840	460	1452	1.267	1734	4.9	31.3	2.379	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1370	342			1370				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	599	1.387	599	71.8	129.7	9.802	F
	C-AB	1840	460	1452	1.267	1737	31.3	57.0	5.206	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1370	342			1370				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	148	0.4	0.3	0.130	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	674	1.006	672	129.7	131.1	11.390	F
	C-AB	381	95	437	0.872	437	57.0	43.1	7.003	F
	C-A	1121	280			1121				
	A-B	0	0			0				
	A-C	1118	280			1118				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	124	0.3	0.2	0.120	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	729	0.779	723	131.1	92.3	9.290	F
	C-AB	319	80	487	0.656	480	43.1	2.8	3.149	F
	C-A	939	235			939				
	A-B	0	0			0				
	A-C	937	234			937				

Junctions 9 - 2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	6.94	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	443	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	587	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1506	100.000
	B - Manston Road (East)		ONE HOUR	✓	587	100.000
	C - A256 South		ONE HOUR	✓	1634	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1506
	B - Manston Road (East)	0	0	587
	C - A256 South	1191	443	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	443
	B - A256 North	0	0	244
	C - Manston Rd East	587	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					539	808
	A-B					0	0
	A-C					407	610
20A12 - Junction 20A.1&2	B-AC	1.22	5.62	64.1	F	539	808
	C-AB	1.55	17.45	147.8	F	1189	1783
	C-A					310	466
	A-B					0	0
	A-C					1382	2073

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	182	0.0	0.4	0.135	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	686	0.644	435	0.0	1.7	0.233	B
	C-AB	334	83	459	0.727	324	0.0	2.4	0.419	D
	C-A	897	224			897				
	A-B	0	0			0				
	A-C	1134	283			1134				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	219	0.4	0.6	0.153	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	621	0.850	516	1.7	4.6	0.523	D
	C-AB	1434	359	1433	1.001	1404	2.4	9.9	0.639	E
	C-A	35	9			35				
	A-B	0	0			0				
	A-C	1354	338			1354				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	268	0.6	0.8	0.184	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	532	1.216	524	4.6	35.2	2.578	F
	C-AB	1799	450	1160	1.551	1622	9.9	54.1	4.773	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1658	415			1658				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	269	0.8	0.8	0.185	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	532	1.216	531	35.2	64.1	5.625	F
	C-AB	1799	450	1160	1.551	1431	54.1	146.0	6.521	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1658	415			1658				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	220	0.8	0.6	0.154	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	621	0.850	612	64.1	43.1	5.232	F
	C-AB	1434	359	1435	1.000	1427	146.0	147.7	8.902	F
	C-A	35	9			35				
	A-B	0	0			0				
	A-C	1354	338			1354				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	184	0.6	0.4	0.137	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	686	0.644	606	43.1	2.0	1.603	F
	C-AB	334	83	459	0.721	459	147.7	116.4	17.446	F
	C-A	897	224			897				
	A-B	0	0			0				
	A-C	1134	283			1134				

Junctions 9 - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	2.21	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	403	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	628	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1269	100.000
	B - Manston Road (East)		ONE HOUR	✓	628	100.000
	C - A256 South		ONE HOUR	✓	1305	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1269
	B - Manston Road (East)	0	0	628
	C - A256 South	902	403	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	403
	B - A256 North	0	0	225
	C - Manston Rd East	628	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					576	864
	A-B					0	0
	A-C					370	555
20A12 - Junction 20A.1&2	B-AC	1.17	4.70	57.9	F	576	864
	C-AB	1.22	5.45	47.0	F	701	1051
	C-A					497	745
	A-B					0	0
	A-C					1164	1747

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	168	0.0	0.4	0.132	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	723	0.654	466	0.0	1.8	0.227	B
	C-AB	303	76	486	0.624	297	0.0	1.6	0.308	C
	C-A	679	170			679				
	A-B	0	0			0				
	A-C	955	239			955				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	202	0.4	0.5	0.147	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	667	0.846	554	1.8	4.6	0.486	D
	C-AB	362	91	435	0.833	353	1.6	4.0	0.663	E
	C-A	811	203			811				
	A-B	0	0			0				
	A-C	1141	285			1141				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	247	0.5	0.7	0.173	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	591	1.171	581	4.6	32.3	2.194	F
	C-AB	1437	359	1177	1.221	1349	4.0	26.0	2.071	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1397	349			1397				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	248	0.7	0.7	0.174	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	591	1.171	589	32.3	57.9	4.699	F
	C-AB	1437	359	1180	1.218	1353	26.0	46.8	4.176	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1397	349			1397				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	203	0.7	0.5	0.148	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	667	0.846	656	57.9	35.1	4.268	F
	C-AB	362	91	437	0.824	435	46.8	28.7	5.454	F
	C-A	811	203			811				
	A-B	0	0			0				
	A-C	1141	285			1141				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	170	0.5	0.4	0.133	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	723	0.654	605	35.1	2.1	1.012	F
	C-AB	303	76	486	0.624	411	28.7	1.8	1.473	F
	C-A	679	170			679				
	A-B	0	0			0				
	A-C	955	239			955				

Junctions 9 - 2039 B+Dev Net Change, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	2.79	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-24	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 B+Dev Net Change	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	424	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	754	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1122	100.000
	B - Manston Road (East)		ONE HOUR	✓	754	100.000
	C - A256 South		ONE HOUR	✓	1588	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1122
	B - Manston Road (East)	0	0	754
	C - A256 South	1164	424	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	424
	B - A256 North	0	0	164
	C - Manston Rd East	754	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	4
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.15	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					692	1038
	A-B					0	0
	A-C					389	584
20A12 - Junction 20A.1&2	B-AC	1.29	8.48	104.3	F	692	1038
	C-AB	1.14	3.74	37.5	F	816	1224
	C-A					641	961
	A-B					0	0
	A-C					1030	1544

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	122	0.0	0.2	0.119	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	759	0.748	557	0.0	2.8	0.284	C
	C-AB	319	80	514	0.621	313	0.0	1.6	0.291	C
	C-A	876	219			876				
	A-B	0	0			0				
	A-C	845	211			845				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	710	0.955	651	2.8	9.5	0.786	E
	C-AB	381	95	470	0.812	373	1.6	3.6	0.577	D
	C-A	1046	262			1046				
	A-B	0	0			0				
	A-C	1009	252			1009				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	643	1.292	639	9.5	57.3	3.379	F
	C-AB	1748	437	1529	1.144	1677	3.6	21.4	1.459	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1235	309			1235				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	643	1.292	642	57.3	104.3	7.481	F
	C-AB	1748	437	1529	1.144	1684	21.4	37.5	2.747	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1235	309			1235				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	148	0.4	0.3	0.130	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	710	0.955	703	104.3	98.0	8.480	F
	C-AB	381	95	470	0.812	470	37.5	15.4	3.745	F
	C-A	1046	262			1046				
	A-B	0	0			0				
	A-C	1009	252			1009				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	124	0.3	0.2	0.120	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	759	0.748	751	98.0	52.2	6.039	F
	C-AB	319	80	514	0.621	374	15.4	1.7	0.583	D
	C-A	876	219			876				
	A-B	0	0			0				
	A-C	845	211			845				

Junctions 9 - 2039 B+Dev Net Change, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	3.24	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	443	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	587	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1394	100.000
	B - Manston Road (East)		ONE HOUR	✓	587	100.000
	C - A256 South		ONE HOUR	✓	1507	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1394
	B - Manston Road (East)	0	0	587
	C - A256 South	1064	443	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	443
	B - A256 North	0	0	244
	C - Manston Rd East	587	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					539	808
	A-B					0	0
	A-C					407	610
20A12 - Junction 20A.1&2	B-AC	1.14	4.04	46.8	F	539	808
	C-AB	1.40	10.28	78.6	F	798	1197
	C-A					584	877
	A-B					0	0
	A-C					1279	1919

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	182	0.0	0.4	0.135	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	711	0.622	436	0.0	1.6	0.214	B
	C-AB	334	83	482	0.692	325	0.0	2.1	0.365	C
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1049	262			1049				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	219	0.4	0.6	0.153	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	651	0.811	519	1.6	3.7	0.430	D
	C-AB	402	101	431	0.935	383	2.1	6.9	0.991	F
	C-A	952	238			952				
	A-B	0	0			0				
	A-C	1253	313			1253				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	268	0.6	0.8	0.184	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	568	1.138	555	3.7	26.6	1.944	F
	C-AB	1659	415	1184	1.401	1515	6.9	42.9	3.505	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1535	384			1535				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	269	0.8	0.8	0.185	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	568	1.138	565	26.6	46.8	4.043	F
	C-AB	1659	415	1186	1.399	1517	42.9	78.4	8.076	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1535	384			1535				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	220	0.8	0.6	0.154	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	651	0.811	637	46.8	19.5	3.196	F
	C-AB	402	101	431	0.929	430	78.4	71.5	10.279	F
	C-A	952	238			952				
	A-B	0	0			0				
	A-C	1253	313			1253				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	184	0.6	0.4	0.137	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	711	0.622	513	19.5	1.7	0.416	C
	C-AB	334	83	482	0.691	482	71.5	34.3	6.836	F
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1049	262			1049				

Junctions 9 - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	1.36	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	20A12 - Junction 20A.1&2 - Stream C-AB

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	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	403	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	628	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1166	100.000
	B - Manston Road (East)		ONE HOUR	✓	628	100.000
	C - A256 South		ONE HOUR	✓	1269	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1166
	B - Manston Road (East)	0	0	628
	C - A256 South	866	403	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	403
	B - A256 North	0	0	225
	C - Manston Rd East	628	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	4
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					576	864
	A-B					0	0
	A-C					370	555
20A12 - Junction 20A.1&2	B-AC	1.10	3.29	40.7	F	576	864
	C-AB	1.12	2.81	30.9	F	688	1031
	C-A					477	715
	A-B					0	0
	A-C					1070	1605

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	168	0.0	0.4	0.132	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	749	0.632	466	0.0	1.7	0.208	B
	C-AB	303	76	510	0.595	298	0.0	1.4	0.276	C
	C-A	652	163			652				
	A-B	0	0			0				
	A-C	878	219			878				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	202	0.4	0.5	0.147	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	698	0.809	556	1.7	3.7	0.401	C
	C-AB	362	91	463	0.782	355	1.4	3.1	0.526	D
	C-A	779	195			779				
	A-B	0	0			0				
	A-C	1048	262			1048				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	247	0.5	0.7	0.173	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	628	1.101	611	3.7	23.8	1.643	F
	C-AB	1397	349	1253	1.115	1338	3.1	18.0	1.311	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1284	321			1284				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	248	0.7	0.7	0.174	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	628	1.101	624	23.8	40.7	3.290	F
	C-AB	1397	349	1256	1.112	1346	18.0	30.7	2.328	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1284	321			1284				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	203	0.7	0.5	0.148	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	698	0.809	681	40.7	11.5	2.410	F
	C-AB	362	91	466	0.774	462	30.7	5.7	2.814	F
	C-A	779	195			779				
	A-B	0	0			0				
	A-C	1048	262			1048				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	170	0.5	0.4	0.133	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	749	0.632	512	11.5	1.8	0.292	C
	C-AB	303	76	510	0.595	320	5.7	1.5	0.341	C
	C-A	652	163			652				
	A-B	0	0			0				
	A-C	878	219			878				



Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Junction 20A.1,2,3_Validated_PM.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 20A.1, 20A.2, 20A.3 and 20B

Report generation date: 31/01/2018 13:16:26

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- »Junctions 9 - 2017 Baseline Traffic, AM
 - »Junctions 9 - 2017 Baseline Traffic, PM
 - »Junctions 9 - 2017 Baseline Traffic, Airport Peak
 - »Junctions 9 - 2039 Growthed Traffic, AM
 - »Junctions 9 - 2039 Growthed Traffic, PM
 - »Junctions 9 - 2039 Growthed Traffic, Airport Peak
 - »Junctions 9 - 2039 + Dev Traffic, AM
 - »Junctions 9 - 2039 + Dev Traffic, PM
 - »Junctions 9 - 2039 + Dev Traffic, Airport Peak
 - »Junctions 9 - 2039 B+Dev Net Change, AM
 - »Junctions 9 - 2039 B+Dev Net Change, PM
 - »Junctions 9 - 2039 B+Dev Net Change, Airport Peak

Summary of junction performance

	AM					PM					Airport Peak				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
Junctions 9 - 2017 Baseline Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.3	0.13	0.23	A	-18 %	0.5	0.15	0.34	A	-12 %	0.4	0.14	0.30	A	-1 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]
20A12 - Junction 20A.1&2 - Stream B-AC	44.1	3.90	1.13	F		16.6	1.98	1.01	F		4.8	0.63	0.84	E	
20A12 - Junction 20A.1&2 - Stream C-AB	4.0	0.69	0.82	E		5.5	1.00	0.87	F		2.1	0.41	0.69	C	
Junctions 9 - 2039 Growthed Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.14	0.30	A	-34 %	0.8	0.18	0.45	B	-30 %	0.7	0.17	0.42	B	-26 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]
20A12 - Junction 20A.1&2 - Stream B-AC	209.0	20.88	1.64	F		142.4	16.75	1.58	F		97.4	10.21	1.37	F	
20A12 - Junction 20A.1&2 - Stream C-AB	49.2	5.70	1.22	F		75.4	10.42	1.43	F		36.0	3.69	1.15	F	
Junctions 9 - 2039 + Dev Traffic															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.15	0.30	A	-37 %	0.8	0.18	0.45	B	-30 %	0.7	0.17	0.42	B	-30 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]
20A12 - Junction 20A.1&2 - Stream B-AC	253.1	25.08	1.76	F		146.6	17.18	1.60	F		135.2	14.14	1.49	F	
20A12 - Junction 20A.1&2 - Stream C-AB	57.0	7.00	1.27	F		147.8	17.45	1.55	F		47.0	5.45	1.22	F	
Junctions 9 - 2039 B+Dev Net Change															
20A.3 - Junction 20A.3 - Stream B-AC	0.4	0.15	0.30	A	-35 %	0.8	0.18	0.45	B	-28 %	0.7	0.17	0.42	B	-27 %
20A.3 - Junction 20A.3 - Stream C-AB	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]	0.0	0.00	0.00	A	[20A12 - Junction 20A.1&2 - Stream B-AC]
20A12 - Junction 20A.1&2 - Stream B-AC	212.5	20.33	1.61	F		116.8	12.85	1.47	F		106.3	10.89	1.38	F	
20A12 - Junction 20A.1&2 - Stream C-AB	37.5	3.74	1.14	F		78.6	10.28	1.40	F		30.9	2.81	1.12	F	

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

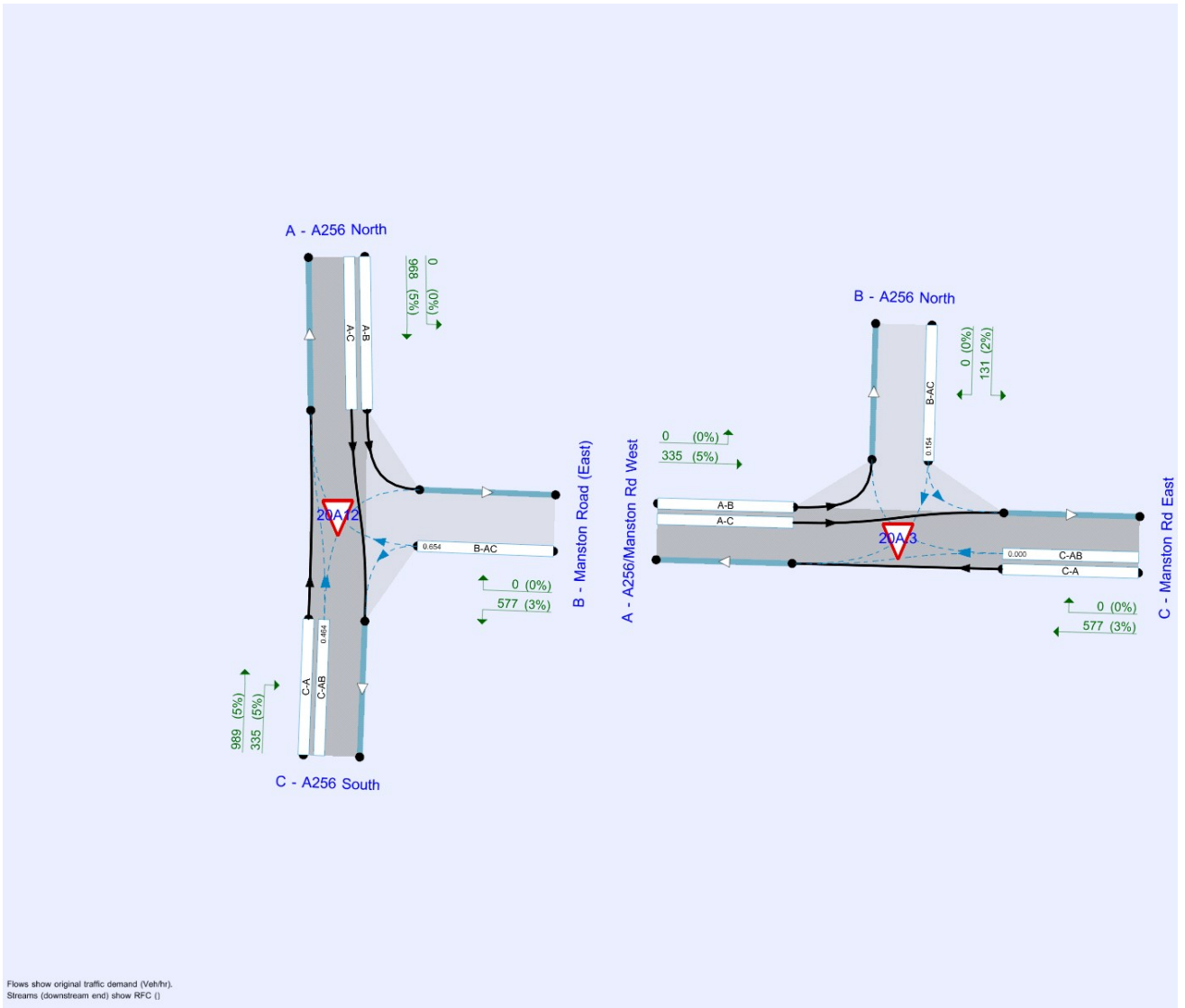
File summary

File Description

Title	Junction 20B
Location	A256 - Manston Rd West
Site number	20B
Date	04/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\jessica.elliott
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	mph	Veh	Veh	perHour	min	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75			✓	Delay	0.85	0.60	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
D3	2017 Baseline Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D6	2039 Growthed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D9	2039 + Dev Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D12	2039 B+Dev Net Change	AM	ONE HOUR	07:30	09:00	15	✓
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	15	✓
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	Junctions 9	✓	100.000	100.000

Junctions 9 - 2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.85	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	20A12 - Junction 20A.1&2 - Stream B-AC

Arms

Arms

Junction	Arm	Name	Description	Arm type
20A.3 - Junction 20A.3	A	A256/Manston Rd West		Major
	B	A256 North		Minor
	C	Manston Rd East		Major
20A12 - Junction 20A.1&2	A	A256 North		Major
	B	Manston Road (East)		Minor
	C	A256 South		Major

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
20A.3 - Junction 20A.3	C - Manston Rd East	11.72					0.0	✓	0.00
20A12 - Junction 20A.1&2	C - A256 South	8.21	✓	7.19	✓	4.24	110.0	✓	80.00

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

Minor Arm Geometry

Junction	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
20A.3 - Junction 20A.3	B - A256 North	One lane	3.79	0	48
20A12 - Junction 20A.1&2	B - Manston Road (East)	One lane	5.00	40	120

Slope / Intercept / Capacity

Stream Intercept Adjustments

Junction	Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
20A.3 - Junction 20A.3	B-AC			
20A12 - Junction 20A.1&2	B-AC	✓		70

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
20A12	B-A	766	0.109	0.275	0.173	0.392
20A12	B-C	840	0.116	0.294	-	-
20A12	C-B	779	0.273	0.273	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
20A.3	B-A	541	0.074	0.187	0.118	0.267
20A.3	B-C	706	0.081	0.205	-	-
20A.3	C-B	574	0.167	0.167	-	-

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
D3	2017 Baseline Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	335	100.000
	B - A256 North		ONE HOUR	✓	131	100.000
	C - Manston Rd East		ONE HOUR	✓	577	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	968	100.000
	B - Manston Road (East)		ONE HOUR	✓	577	100.000
	C - A256 South		ONE HOUR	✓	1324	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	968
	B - Manston Road (East)	0	0	577
	C - A256 South	989	335	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	335
	B - A256 North	0	0	131
	C - Manston Rd East	577	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
From		A - A256 North	B - Manston Road (East)	C - A256 South
	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
From		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.23	0.13	0.3	A	120	180
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					529	794
	A-B					0	0
	A-C					307	461
20A12 - Junction 20A.1&2	B-AC	1.13	3.90	44.1	F	529	794
	C-AB	0.82	0.69	4.0	E	307	461
	C-A					908	1361
	A-B					0	0
	A-C					888	1332

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	99	25	639	0.154	98	0.0	0.2	0.111	A
	C-AB	0	0	522	0.000	0	0.0	0.0	0.000	A
	C-A	434	109			434				
	A-B	0	0			0				
	A-C	252	63			252				
20A12 - Junction 20A.1&2	B-AC	434	109	665	0.654	427	0.0	1.8	0.246	B
	C-AB	252	63	543	0.464	249	0.0	0.8	0.202	B
	C-A	745	186			745				
	A-B	0	0			0				
	A-C	729	182			729				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	118	29	628	0.187	118	0.2	0.2	0.117	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	519	130			519				
	A-B	0	0			0				
	A-C	301	75			301				
20A12 - Junction 20A.1&2	B-AC	519	130	622	0.834	509	1.8	4.2	0.492	D
	C-AB	301	75	505	0.597	299	0.8	1.4	0.288	C
	C-A	889	222			889				
	A-B	0	0			0				
	A-C	870	218			870				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	144	36	614	0.235	144	0.2	0.3	0.128	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	635	159			635				
	A-B	0	0			0				
	A-C	369	92			369				
20A12 - Junction 20A.1&2	B-AC	635	159	564	1.127	550	4.2	25.4	1.924	F
	C-AB	369	92	451	0.817	360	1.4	3.7	0.603	E
	C-A	1089	272			1089				
	A-B	0	0			0				
	A-C	1066	266			1066				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	144	36	614	0.235	144	0.3	0.3	0.128	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	635	159			635				
	A-B	0	0			0				
	A-C	369	92			369				
20A12 - Junction 20A.1&2	B-AC	635	159	564	1.127	561	25.4	44.1	3.900	F
	C-AB	369	92	451	0.817	368	3.7	4.0	0.692	E
	C-A	1089	272			1089				
	A-B	0	0			0				
	A-C	1066	266			1066				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	118	29	628	0.187	118	0.3	0.2	0.118	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	519	130			519				
	A-B	0	0			0				
	A-C	301	75			301				
20A12 - Junction 20A.1&2	B-AC	519	130	622	0.834	608	44.1	21.6	3.303	F
	C-AB	301	75	505	0.597	311	4.0	1.5	0.324	C
	C-A	889	222			889				
	A-B	0	0			0				
	A-C	870	218			870				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	99	25	639	0.154	99	0.2	0.2	0.111	A
	C-AB	0	0	522	0.000	0	0.0	0.0	0.000	A
	C-A	434	109			434				
	A-B	0	0			0				
	A-C	252	63			252				
20A12 - Junction 20A.1&2	B-AC	434	109	665	0.654	513	21.6	2.0	0.591	E
	C-AB	252	63	543	0.464	255	1.5	0.9	0.210	B
	C-A	745	186			745				
	A-B	0	0			0				
	A-C	729	182			729				

Junctions 9 - 2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.43	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	20A12 - Junction 20A.1&2 - Stream B-AC

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	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	325	100.000
	B - A256 North		ONE HOUR	✓	194	100.000
	C - Manston Rd East		ONE HOUR	✓	463	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1191	100.000
	B - Manston Road (East)		ONE HOUR	✓	463	100.000
	C - A256 South		ONE HOUR	✓	1245	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1191
	B - Manston Road (East)	0	0	463
	C - A256 South	920	325	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	325
	B - A256 North	0	0	194
	C - Manston Rd East	463	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.34	0.15	0.5	A	178	267
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					425	637
	A-B					0	0
	A-C					298	447
20A12 - Junction 20A.1&2	B-AC	1.01	1.98	16.6	F	425	637
	C-AB	0.87	1.00	5.5	F	298	447
	C-A					844	1266
	A-B					0	0
	A-C					1093	1639

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	146	37	642	0.227	145	0.0	0.3	0.120	A
	C-AB	0	0	527	0.000	0	0.0	0.0	0.000	A
	C-A	349	87			349				
	A-B	0	0			0				
	A-C	245	61			245				
20A12 - Junction 20A.1&2	B-AC	349	87	628	0.555	344	0.0	1.2	0.208	B
	C-AB	245	61	524	0.467	241	0.0	0.9	0.210	B
	C-A	693	173			693				
	A-B	0	0			0				
	A-C	897	224			897				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	174	44	633	0.276	174	0.3	0.4	0.131	A
	C-AB	0	0	519	0.000	0	0.0	0.0	0.000	A
	C-A	416	104			416				
	A-B	0	0			0				
	A-C	292	73			292				
20A12 - Junction 20A.1&2	B-AC	416	104	577	0.721	411	1.2	2.4	0.353	C
	C-AB	292	73	476	0.613	290	0.9	1.5	0.317	C
	C-A	827	207			827				
	A-B	0	0			0				
	A-C	1071	268			1071				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	214	53	619	0.345	213	0.4	0.5	0.147	A
	C-AB	0	0	509	0.000	0	0.0	0.0	0.000	A
	C-A	510	127			510				
	A-B	0	0			0				
	A-C	358	89			358				
20A12 - Junction 20A.1&2	B-AC	510	127	506	1.007	473	2.4	11.6	1.198	F
	C-AB	358	89	410	0.872	345	1.5	4.8	0.793	E
	C-A	1013	253			1013				
	A-B	0	0			0				
	A-C	1311	328			1311				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	214	53	619	0.345	214	0.5	0.5	0.148	A
	C-AB	0	0	509	0.000	0	0.0	0.0	0.000	A
	C-A	510	127			510				
	A-B	0	0			0				
	A-C	358	89			358				
20A12 - Junction 20A.1&2	B-AC	510	127	506	1.007	490	11.6	16.6	1.975	F
	C-AB	358	89	410	0.872	355	4.8	5.5	0.996	F
	C-A	1013	253			1013				
	A-B	0	0			0				
	A-C	1311	328			1311				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	174	44	633	0.276	175	0.5	0.4	0.131	A
	C-AB	0	0	519	0.000	0	0.0	0.0	0.000	A
	C-A	416	104			416				
	A-B	0	0			0				
	A-C	292	73			292				
20A12 - Junction 20A.1&2	B-AC	416	104	577	0.721	471	16.6	2.9	0.765	E
	C-AB	292	73	476	0.613	308	5.5	1.7	0.383	C
	C-A	827	207			827				
	A-B	0	0			0				
	A-C	1071	268			1071				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	146	37	642	0.227	146	0.4	0.3	0.121	A
	C-AB	0	0	527	0.000	0	0.0	0.0	0.000	A
	C-A	349	87			349				
	A-B	0	0			0				
	A-C	245	61			245				
20A12 - Junction 20A.1&2	B-AC	349	87	628	0.555	355	2.9	1.3	0.225	B
	C-AB	245	61	524	0.467	248	1.7	0.9	0.219	B
	C-A	693	173			693				
	A-B	0	0			0				
	A-C	897	224			897				

Junctions 9 - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	0.17	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	20A12 - Junction 20A.1&2 - Stream B-AC

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	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	294	100.000
	B - A256 North		ONE HOUR	✓	169	100.000
	C - Manston Rd East		ONE HOUR	✓	443	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	924	100.000
	B - Manston Road (East)		ONE HOUR	✓	443	100.000
	C - A256 South		ONE HOUR	✓	961	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	924
	B - Manston Road (East)	0	0	443
	C - A256 South	667	294	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	294
	B - A256 North	0	0	169
	C - Manston Rd East	443	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.14	0.4	A	155	233
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					407	610
	A-B					0	0
	A-C					270	405
20A12 - Junction 20A.1&2	B-AC	0.84	0.63	4.8	E	407	610
	C-AB	0.69	0.41	2.1	C	270	405
	C-A					612	918
	A-B					0	0
	A-C					848	1272

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	127	32	639	0.199	126	0.0	0.2	0.117	A
	C-AB	0	0	528	0.000	0	0.0	0.0	0.000	A
	C-A	334	83			334				
	A-B	0	0			0				
	A-C	221	55			221				
20A12 - Junction 20A.1&2	B-AC	334	83	675	0.494	330	0.0	1.0	0.172	B
	C-AB	221	55	558	0.397	219	0.0	0.6	0.176	B
	C-A	502	126			502				
	A-B	0	0			0				
	A-C	696	174			696				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	152	38	631	0.241	152	0.2	0.3	0.125	A
	C-AB	0	0	520	0.000	0	0.0	0.0	0.000	A
	C-A	398	100			398				
	A-B	0	0			0				
	A-C	264	66			264				
20A12 - Junction 20A.1&2	B-AC	398	100	634	0.628	396	1.0	1.6	0.249	B
	C-AB	264	66	520	0.508	263	0.6	1.0	0.232	B
	C-A	600	150			600				
	A-B	0	0			0				
	A-C	831	208			831				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	186	47	618	0.301	186	0.3	0.4	0.139	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	488	122			488				
	A-B	0	0			0				
	A-C	324	81			324				
20A12 - Junction 20A.1&2	B-AC	488	122	578	0.844	477	1.6	4.4	0.540	D
	C-AB	324	81	469	0.690	319	1.0	2.1	0.390	C
	C-A	734	184			734				
	A-B	0	0			0				
	A-C	1017	254			1017				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	186	47	618	0.301	186	0.4	0.4	0.139	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	488	122			488				
	A-B	0	0			0				
	A-C	324	81			324				
20A12 - Junction 20A.1&2	B-AC	488	122	578	0.844	486	4.4	4.8	0.628	E
	C-AB	324	81	469	0.690	323	2.1	2.1	0.410	C
	C-A	734	184			734				
	A-B	0	0			0				
	A-C	1017	254			1017				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	152	38	631	0.241	152	0.4	0.3	0.126	A
	C-AB	0	0	520	0.000	0	0.0	0.0	0.000	A
	C-A	398	100			398				
	A-B	0	0			0				
	A-C	264	66			264				
20A12 - Junction 20A.1&2	B-AC	398	100	634	0.628	410	4.8	1.8	0.281	C
	C-AB	264	66	520	0.508	269	2.1	1.1	0.242	B
	C-A	600	150			600				
	A-B	0	0			0				
	A-C	831	208			831				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	127	32	639	0.199	128	0.3	0.3	0.117	A
	C-AB	0	0	528	0.000	0	0.0	0.0	0.000	A
	C-A	334	83			334				
	A-B	0	0			0				
	A-C	221	55			221				
20A12 - Junction 20A.1&2	B-AC	334	83	675	0.494	337	1.8	1.0	0.179	B
	C-AB	221	55	558	0.397	223	1.1	0.7	0.180	B
	C-A	502	126			502				
	A-B	0	0			0				
	A-C	696	174			696				

Junctions 9 - 2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	5.58	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-34	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 Growthed Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	419	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	721	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1211	100.000
	B - Manston Road (East)		ONE HOUR	✓	721	100.000
	C - A256 South		ONE HOUR	✓	1662	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1211
	B - Manston Road (East)	0	0	721
	C - A256 South	1243	419	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	419
	B - A256 North	0	0	164
	C - Manston Rd East	721	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.14	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					662	992
	A-B					0	0
	A-C					384	577
20A12 - Junction 20A.1&2	B-AC	1.64	20.88	209.0	F	662	992
	C-AB	1.22	5.70	49.2	F	841	1261
	C-A					684	1027
	A-B					0	0
	A-C					1111	1667

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.197	122	0.0	0.2	0.119	A
	C-AB	0	0	511	0.000	0	0.0	0.0	0.000	A
	C-A	543	136			543				
	A-B	0	0			0				
	A-C	315	79			315				
20A12 - Junction 20A.1&2	B-AC	543	136	610	0.890	520	0.0	5.8	0.570	D
	C-AB	315	79	493	0.639	309	0.0	1.7	0.315	C
	C-A	936	234			936				
	A-B	0	0			0				
	A-C	912	228			912				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	612	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	648	162			648				
	A-B	0	0			0				
	A-C	377	94			377				
20A12 - Junction 20A.1&2	B-AC	648	162	557	1.164	548	5.8	30.8	2.365	F
	C-AB	377	94	445	0.846	366	1.7	4.3	0.685	E
	C-A	1117	279			1117				
	A-B	0	0			0				
	A-C	1089	272			1089				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	594	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	486	0.000	0	0.0	0.0	0.000	A
	C-A	794	198			794				
	A-B	0	0			0				
	A-C	461	115			461				
20A12 - Junction 20A.1&2	B-AC	794	198	483	1.642	483	30.8	108.5	8.873	F
	C-AB	1830	457	1500	1.220	1738	4.3	27.2	2.007	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1333	333			1333				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	594	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	486	0.000	0	0.0	0.0	0.000	A
	C-A	794	198			794				
	A-B	0	0			0				
	A-C	461	115			461				
20A12 - Junction 20A.1&2	B-AC	794	198	483	1.642	483	108.5	186.1	16.959	F
	C-AB	1830	457	1500	1.220	1742	27.2	49.2	4.188	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1333	333			1333				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	612	0.241	148	0.4	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	648	162			648				
	A-B	0	0			0				
	A-C	377	94			377				
20A12 - Junction 20A.1&2	B-AC	648	162	557	1.164	557	186.1	209.0	20.878	F
	C-AB	377	94	445	0.846	445	49.2	32.1	5.704	F
	C-A	1117	279			1117				
	A-B	0	0			0				
	A-C	1089	272			1089				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.197	124	0.3	0.2	0.120	A
	C-AB	0	0	511	0.000	0	0.0	0.0	0.000	A
	C-A	543	136			543				
	A-B	0	0			0				
	A-C	315	79			315				
20A12 - Junction 20A.1&2	B-AC	543	136	610	0.890	607	209.0	193.0	19.878	F
	C-AB	315	79	493	0.639	436	32.1	2.0	1.822	F
	C-A	936	234			936				
	A-B	0	0			0				
	A-C	912	228			912				

Junctions 9 - 2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	5.16	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	409	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	584	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1501	100.000
	B - Manston Road (East)		ONE HOUR	✓	584	100.000
	C - A256 South		ONE HOUR	✓	1568	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1501
	B - Manston Road (East)	0	0	584
	C - A256 South	1159	409	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	409
	B - A256 North	0	0	244
	C - Manston Rd East	584	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					536	804
	A-B					0	0
	A-C					375	563
20A12 - Junction 20A.1&2	B-AC	1.58	16.75	142.4	F	536	804
	C-AB	1.43	10.42	75.4	F	801	1201
	C-A					638	957
	A-B					0	0
	A-C					1377	2066

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	629	0.292	182	0.0	0.4	0.134	A
	C-AB	0	0	517	0.000	0	0.0	0.0	0.000	A
	C-A	440	110			440				
	A-B	0	0			0				
	A-C	308	77			308				
20A12 - Junction 20A.1&2	B-AC	440	110	559	0.786	427	0.0	3.2	0.419	D
	C-AB	308	77	460	0.669	300	0.0	1.9	0.361	C
	C-A	873	218			873				
	A-B	0	0			0				
	A-C	1130	283			1130				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	617	0.355	219	0.4	0.5	0.150	A
	C-AB	0	0	507	0.000	0	0.0	0.0	0.000	A
	C-A	525	131			525				
	A-B	0	0			0				
	A-C	368	92			368				
20A12 - Junction 20A.1&2	B-AC	525	131	495	1.061	474	3.2	16.1	1.583	F
	C-AB	369	92	401	0.920	352	1.9	6.2	0.978	F
	C-A	1041	260			1041				
	A-B	0	0			0				
	A-C	1349	337			1349				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	600	0.447	268	0.5	0.8	0.180	B
	C-AB	0	0	493	0.000	0	0.0	0.0	0.000	A
	C-A	643	161			643				
	A-B	0	0			0				
	A-C	450	113			450				
20A12 - Junction 20A.1&2	B-AC	643	161	406	1.584	405	16.1	75.5	7.061	F
	C-AB	1726	432	1210	1.427	1588	6.2	40.9	3.645	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1653	413			1653				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	600	0.447	269	0.8	0.8	0.181	B
	C-AB	0	0	493	0.000	0	0.0	0.0	0.000	A
	C-A	643	161			643				
	A-B	0	0			0				
	A-C	450	113			450				
20A12 - Junction 20A.1&2	B-AC	643	161	406	1.584	406	75.5	134.9	14.227	F
	C-AB	1726	432	1212	1.425	1589	40.9	75.2	8.620	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1653	413			1653				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	617	0.355	220	0.8	0.6	0.152	A
	C-AB	0	0	507	0.000	0	0.0	0.0	0.000	A
	C-A	525	131			525				
	A-B	0	0			0				
	A-C	368	92			368				
20A12 - Junction 20A.1&2	B-AC	525	131	495	1.061	495	134.9	142.4	16.749	F
	C-AB	369	92	401	0.915	401	75.2	67.2	10.416	F
	C-A	1041	260			1041				
	A-B	0	0			0				
	A-C	1349	337			1349				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	629	0.292	184	0.6	0.4	0.135	A
	C-AB	0	0	517	0.000	0	0.0	0.0	0.000	A
	C-A	440	110			440				
	A-B	0	0			0				
	A-C	308	77			308				
20A12 - Junction 20A.1&2	B-AC	440	110	559	0.786	556	142.4	113.5	13.836	F
	C-AB	308	77	460	0.669	460	67.2	29.2	6.568	F
	C-A	873	218			873				
	A-B	0	0			0				
	A-C	1130	283			1130				

Junctions 9 - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	2.80	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-26	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	392	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	591	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1234	100.000
	B - Manston Road (East)		ONE HOUR	✓	591	100.000
	C - A256 South		ONE HOUR	✓	1283	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1234
	B - Manston Road (East)	0	0	591
	C - A256 South	891	392	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	392
	B - A256 North	0	0	225
	C - Manston Rd East	591	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					542	813
	A-B					0	0
	A-C					360	540
20A12 - Junction 20A.1&2	B-AC	1.37	10.21	97.4	F	542	813
	C-AB	1.15	3.69	36.0	F	687	1030
	C-A					491	736
	A-B					0	0
	A-C					1132	1699

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	624	0.271	168	0.0	0.4	0.131	A
	C-AB	0	0	515	0.000	0	0.0	0.0	0.000	A
	C-A	445	111			445				
	A-B	0	0			0				
	A-C	295	74			295				
20A12 - Junction 20A.1&2	B-AC	445	111	605	0.736	435	0.0	2.6	0.336	C
	C-AB	295	74	493	0.598	289	0.0	1.4	0.287	C
	C-A	671	168			671				
	A-B	0	0			0				
	A-C	929	232			929				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	612	0.330	202	0.4	0.5	0.146	A
	C-AB	0	0	505	0.000	0	0.0	0.0	0.000	A
	C-A	531	133			531				
	A-B	0	0			0				
	A-C	352	88			352				
20A12 - Junction 20A.1&2	B-AC	531	133	551	0.965	505	2.6	9.3	0.969	F
	C-AB	352	88	444	0.794	345	1.4	3.3	0.569	D
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1109	277			1109				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	596	0.416	247	0.5	0.7	0.172	B
	C-AB	0	0	492	0.000	0	0.0	0.0	0.000	A
	C-A	651	163			651				
	A-B	0	0			0				
	A-C	432	108			432				
20A12 - Junction 20A.1&2	B-AC	651	163	476	1.367	473	9.3	53.6	4.271	F
	C-AB	1413	353	1224	1.154	1344	3.3	20.4	1.575	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1359	340			1359				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	596	0.416	248	0.7	0.7	0.172	B
	C-AB	0	0	492	0.000	0	0.0	0.0	0.000	A
	C-A	651	163			651				
	A-B	0	0			0				
	A-C	432	108			432				
20A12 - Junction 20A.1&2	B-AC	651	163	476	1.367	476	53.6	97.4	9.220	F
	C-AB	1413	353	1227	1.151	1351	20.4	35.9	2.946	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1359	340			1359				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	612	0.330	203	0.7	0.5	0.147	A
	C-AB	0	0	505	0.000	0	0.0	0.0	0.000	A
	C-A	531	133			531				
	A-B	0	0			0				
	A-C	352	88			352				
20A12 - Junction 20A.1&2	B-AC	531	133	551	0.965	545	97.4	94.0	10.210	F
	C-AB	352	88	446	0.786	444	35.9	13.1	3.695	F
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1109	277			1109				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	624	0.271	170	0.5	0.4	0.132	A
	C-AB	0	0	515	0.000	0	0.0	0.0	0.000	A
	C-A	445	111			445				
	A-B	0	0			0				
	A-C	295	74			295				
20A12 - Junction 20A.1&2	B-AC	445	111	605	0.736	598	94.0	55.6	7.541	F
	C-AB	295	74	493	0.598	341	13.1	1.6	0.505	D
	C-A	671	168			671				
	A-B	0	0			0				
	A-C	929	232			929				

Junctions 9 - 2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	6.84	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-37	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 + Dev Traffic	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	424	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	754	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1244	100.000
	B - Manston Road (East)		ONE HOUR	✓	754	100.000
	C - A256 South		ONE HOUR	✓	1671	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1244
	B - Manston Road (East)	0	0	754
	C - A256 South	1247	424	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	424
	B - A256 North	0	0	164
	C - Manston Rd East	754	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.15	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					692	1038
	A-B					0	0
	A-C					389	584
20A12 - Junction 20A.1&2	B-AC	1.76	25.08	253.1	F	692	1038
	C-AB	1.27	7.00	57.0	F	847	1270
	C-A					687	1030
	A-B					0	0
	A-C					1142	1712

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	122	0.0	0.2	0.119	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	602	0.942	536	0.0	8.0	0.714	E
	C-AB	319	80	487	0.656	312	0.0	1.8	0.332	C
	C-A	939	235			939				
	A-B	0	0			0				
	A-C	937	234			937				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	548	1.237	543	8.0	41.7	3.136	F
	C-AB	381	95	437	0.872	369	1.8	4.9	0.767	E
	C-A	1121	280			1121				
	A-B	0	0			0				
	A-C	1118	280			1118				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	473	1.757	472	41.7	131.2	11.174	F
	C-AB	1840	460	1452	1.267	1734	4.9	31.3	2.379	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1370	342			1370				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	473	1.757	473	131.2	220.6	22.499	F
	C-AB	1840	460	1452	1.267	1737	31.3	57.0	5.206	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1370	342			1370				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	148	0.4	0.3	0.130	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	548	1.237	548	220.6	253.1	25.076	F
	C-AB	381	95	437	0.872	437	57.0	43.1	7.003	F
	C-A	1121	280			1121				
	A-B	0	0			0				
	A-C	1118	280			1118				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	124	0.3	0.2	0.120	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	602	0.942	600	253.1	245.0	24.907	F
	C-AB	319	80	487	0.656	480	43.1	2.8	3.149	F
	C-A	939	235			939				
	A-B	0	0			0				
	A-C	937	234			937				

Junctions 9 - 2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	8.76	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	443	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	587	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1506	100.000
	B - Manston Road (East)		ONE HOUR	✓	587	100.000
	C - A256 South		ONE HOUR	✓	1634	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1506
	B - Manston Road (East)	0	0	587
	C - A256 South	1191	443	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	443
	B - A256 North	0	0	244
	C - Manston Rd East	587	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					539	808
	A-B					0	0
	A-C					407	610
20A12 - Junction 20A.1&2	B-AC	1.60	17.18	146.6	F	539	808
	C-AB	1.55	17.45	147.8	F	1189	1783
	C-A					310	466
	A-B					0	0
	A-C					1382	2073

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	182	0.0	0.4	0.135	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	558	0.791	429	0.0	3.3	0.428	D
	C-AB	334	83	459	0.727	324	0.0	2.4	0.419	D
	C-A	897	224			897				
	A-B	0	0			0				
	A-C	1134	283			1134				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	219	0.4	0.6	0.153	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	494	1.069	474	3.3	16.8	1.642	F
	C-AB	1434	359	1433	1.001	1404	2.4	9.9	0.639	E
	C-A	35	9			35				
	A-B	0	0			0				
	A-C	1354	338			1354				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	268	0.6	0.8	0.184	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	404	1.599	404	16.8	77.5	7.289	F
	C-AB	1799	450	1160	1.551	1622	9.9	54.1	4.773	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1658	415			1658				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	269	0.8	0.8	0.185	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	404	1.599	404	77.5	138.1	14.588	F
	C-AB	1799	450	1160	1.551	1431	54.1	146.0	6.521	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1658	415			1658				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	220	0.8	0.6	0.154	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	494	1.069	493	138.1	146.6	17.185	F
	C-AB	1434	359	1435	1.000	1427	146.0	147.7	8.902	F
	C-A	35	9			35				
	A-B	0	0			0				
	A-C	1354	338			1354				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	184	0.6	0.4	0.137	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	558	0.791	555	146.6	118.5	14.358	F
	C-AB	334	83	459	0.721	459	147.7	116.4	17.446	F
	C-A	897	224			897				
	A-B	0	0			0				
	A-C	1134	283			1134				

Junctions 9 - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	4.03	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	403	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	628	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1269	100.000
	B - Manston Road (East)		ONE HOUR	✓	628	100.000
	C - A256 South		ONE HOUR	✓	1305	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1269
	B - Manston Road (East)	0	0	628
	C - A256 South	902	403	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	403
	B - A256 North	0	0	225
	C - Manston Rd East	628	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	5
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					576	864
	A-B					0	0
	A-C					370	555
20A12 - Junction 20A.1&2	B-AC	1.49	14.14	135.2	F	576	864
	C-AB	1.22	5.45	47.0	F	701	1051
	C-A					497	745
	A-B					0	0
	A-C					1164	1747

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	168	0.0	0.4	0.132	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	597	0.792	459	0.0	3.3	0.405	C
	C-AB	303	76	486	0.624	297	0.0	1.6	0.308	C
	C-A	679	170			679				
	A-B	0	0			0				
	A-C	955	239			955				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	202	0.4	0.5	0.147	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	541	1.043	516	3.3	15.4	1.419	F
	C-AB	362	91	435	0.833	353	1.6	4.0	0.663	E
	C-A	811	203			811				
	A-B	0	0			0				
	A-C	1141	285			1141				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	247	0.5	0.7	0.173	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	464	1.489	463	15.4	72.4	5.950	F
	C-AB	1437	359	1177	1.221	1349	4.0	26.0	2.071	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1397	349			1397				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	248	0.7	0.7	0.174	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	464	1.489	464	72.4	129.3	12.327	F
	C-AB	1437	359	1180	1.218	1353	26.0	46.8	4.176	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1397	349			1397				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	203	0.7	0.5	0.148	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	541	1.043	541	129.3	135.2	14.143	F
	C-AB	362	91	437	0.824	435	46.8	28.7	5.454	F
	C-A	811	203			811				
	A-B	0	0			0				
	A-C	1141	285			1141				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	170	0.5	0.4	0.133	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	597	0.792	592	135.2	105.4	12.204	F
	C-AB	303	76	486	0.624	411	28.7	1.8	1.473	F
	C-A	679	170			679				
	A-B	0	0			0				
	A-C	955	239			955				

Junctions 9 - 2039 B+Dev Net Change, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.02	A
20A12	Junction 20A.1&2	T-Junction	Two-way	5.34	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 B+Dev Net Change	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	424	100.000
	B - A256 North		ONE HOUR	✓	164	100.000
	C - Manston Rd East		ONE HOUR	✓	754	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1122	100.000
	B - Manston Road (East)		ONE HOUR	✓	754	100.000
	C - A256 South		ONE HOUR	✓	1588	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1122
	B - Manston Road (East)	0	0	754
	C - A256 South	1164	424	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	424
	B - A256 North	0	0	164
	C - Manston Rd East	754	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	4
	B - Manston Road (East)	0	0	3
	C - A256 South	5	5	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	5
	B - A256 North	0	0	2
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.30	0.15	0.4	A	150	226
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					692	1038
	A-B					0	0
	A-C					389	584
20A12 - Junction 20A.1&2	B-AC	1.61	20.33	212.5	F	692	1038
	C-AB	1.14	3.74	37.5	F	816	1224
	C-A					641	961
	A-B					0	0
	A-C					1030	1544

Main Results for each time segment

07:30 - 07:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	122	0.0	0.2	0.119	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	632	0.898	543	0.0	6.1	0.572	D
	C-AB	319	80	514	0.621	313	0.0	1.6	0.291	C
	C-A	876	219			876				
	A-B	0	0			0				
	A-C	845	211			845				

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	147	0.2	0.3	0.129	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	584	1.161	575	6.1	31.9	2.325	F
	C-AB	381	95	470	0.812	373	1.6	3.6	0.577	D
	C-A	1046	262			1046				
	A-B	0	0			0				
	A-C	1009	252			1009				

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	180	0.3	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	516	1.608	516	31.9	110.4	8.481	F
	C-AB	1748	437	1529	1.144	1677	3.6	21.4	1.459	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1235	309			1235				

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	181	45	593	0.304	181	0.4	0.4	0.145	A
	C-AB	0	0	485	0.000	0	0.0	0.0	0.000	A
	C-A	830	208			830				
	A-B	0	0			0				
	A-C	467	117			467				
20A12 - Junction 20A.1&2	B-AC	830	208	516	1.608	516	110.4	188.9	16.351	F
	C-AB	1748	437	1529	1.144	1684	21.4	37.5	2.747	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1235	309			1235				

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	147	37	611	0.241	148	0.4	0.3	0.130	A
	C-AB	0	0	500	0.000	0	0.0	0.0	0.000	A
	C-A	678	169			678				
	A-B	0	0			0				
	A-C	381	95			381				
20A12 - Junction 20A.1&2	B-AC	678	169	584	1.161	584	188.9	212.5	20.327	F
	C-AB	381	95	470	0.812	470	37.5	15.4	3.745	F
	C-A	1046	262			1046				
	A-B	0	0			0				
	A-C	1009	252			1009				

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	123	31	625	0.198	124	0.3	0.2	0.120	A
	C-AB	0	0	510	0.000	0	0.0	0.0	0.000	A
	C-A	568	142			568				
	A-B	0	0			0				
	A-C	319	80			319				
20A12 - Junction 20A.1&2	B-AC	568	142	632	0.898	629	212.5	197.0	19.526	F
	C-AB	319	80	514	0.621	374	15.4	1.7	0.583	D
	C-A	876	219			876				
	A-B	0	0			0				
	A-C	845	211			845				

Junctions 9 - 2039 B+Dev Net Change, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.04	A
20A12	Junction 20A.1&2	T-Junction	Two-way	4.72	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	443	100.000
	B - A256 North		ONE HOUR	✓	244	100.000
	C - Manston Rd East		ONE HOUR	✓	587	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1394	100.000
	B - Manston Road (East)		ONE HOUR	✓	587	100.000
	C - A256 South		ONE HOUR	✓	1507	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1394
	B - Manston Road (East)	0	0	587
	C - A256 South	1064	443	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	443
	B - A256 North	0	0	244
	C - Manston Rd East	587	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	2
	B - Manston Road (East)	0	0	2
	C - A256 South	2	1	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	1
	B - A256 North	0	0	2
	C - Manston Rd East	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.45	0.18	0.8	B	224	336
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					539	808
	A-B					0	0
	A-C					407	610
20A12 - Junction 20A.1&2	B-AC	1.47	12.85	116.8	F	539	808
	C-AB	1.40	10.28	78.6	F	798	1197
	C-A					584	877
	A-B					0	0
	A-C					1279	1919

Main Results for each time segment

16:30 - 16:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	182	0.0	0.4	0.135	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	583	0.758	431	0.0	2.8	0.370	C
	C-AB	334	83	482	0.692	325	0.0	2.1	0.365	C
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1049	262			1049				

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	219	0.4	0.6	0.153	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	523	1.008	491	2.8	12.0	1.226	F
	C-AB	402	101	431	0.935	383	2.1	6.9	0.991	F
	C-A	952	238			952				
	A-B	0	0			0				
	A-C	1253	313			1253				

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	268	0.6	0.8	0.184	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	440	1.467	439	12.0	63.8	5.468	F
	C-AB	1659	415	1184	1.401	1515	6.9	42.9	3.505	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1535	384			1535				

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	269	67	593	0.453	269	0.8	0.8	0.185	B
	C-AB	0	0	487	0.000	0	0.0	0.0	0.000	A
	C-A	646	162			646				
	A-B	0	0			0				
	A-C	488	122			488				
20A12 - Junction 20A.1&2	B-AC	646	162	440	1.467	440	63.8	115.3	11.511	F
	C-AB	1659	415	1186	1.399	1517	42.9	78.4	8.076	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1535	384			1535				

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	219	55	611	0.359	220	0.8	0.6	0.154	A
	C-AB	0	0	502	0.000	0	0.0	0.0	0.000	A
	C-A	528	132			528				
	A-B	0	0			0				
	A-C	398	100			398				
20A12 - Junction 20A.1&2	B-AC	528	132	523	1.008	522	115.3	116.8	12.848	F
	C-AB	402	101	431	0.929	430	78.4	71.5	10.279	F
	C-A	952	238			952				
	A-B	0	0			0				
	A-C	1253	313			1253				

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	184	46	624	0.294	184	0.6	0.4	0.137	A
	C-AB	0	0	513	0.000	0	0.0	0.0	0.000	A
	C-A	442	110			442				
	A-B	0	0			0				
	A-C	334	83			334				
20A12 - Junction 20A.1&2	B-AC	442	110	583	0.758	578	116.8	82.8	10.381	F
	C-AB	334	83	482	0.691	482	71.5	34.3	6.836	F
	C-A	801	200			801				
	A-B	0	0			0				
	A-C	1049	262			1049				

Junctions 9 - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (min)	Junction LOS
20A.3	Junction 20A.3	T-Junction	Two-way	0.03	A
20A12	Junction 20A.1&2	T-Junction	Two-way	2.90	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-27	20A12 - Junction 20A.1&2 - Stream B-AC

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	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	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)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
20A.3 - Junction 20A.3	A - A256/Manston Rd West		ONE HOUR	✓	403	100.000
	B - A256 North		ONE HOUR	✓	225	100.000
	C - Manston Rd East		ONE HOUR	✓	628	100.000
20A12 - Junction 20A.1&2	A - A256 North		ONE HOUR	✓	1166	100.000
	B - Manston Road (East)		ONE HOUR	✓	628	100.000
	C - A256 South		ONE HOUR	✓	1269	100.000

Origin-Destination Data

Demand (Veh/hr)

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	1166
	B - Manston Road (East)	0	0	628
	C - A256 South	866	403	0

Demand (Veh/hr)

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	403
	B - A256 North	0	0	225
	C - Manston Rd East	628	0	0

Vehicle Mix

Heavy Vehicle Percentages

20A12 - Junction 20A.1&2

		To		
		A - A256 North	B - Manston Road (East)	C - A256 South
From	A - A256 North	0	0	4
	B - Manston Road (East)	0	0	3
	C - A256 South	6	4	0

Heavy Vehicle Percentages

20A.3 - Junction 20A.3

		To		
		A - A256/Manston Rd West	B - A256 North	C - Manston Rd East
From	A - A256/Manston Rd West	0	0	4
	B - A256 North	0	0	3
	C - Manston Rd East	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
20A.3 - Junction 20A.3	B-AC	0.42	0.17	0.7	B	206	310
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					576	864
	A-B					0	0
	A-C					370	555
20A12 - Junction 20A.1&2	B-AC	1.38	10.89	106.3	F	576	864
	C-AB	1.12	2.81	30.9	F	688	1031
	C-A					477	715
	A-B					0	0
	A-C					1070	1605

Main Results for each time segment

12:45 - 13:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	168	0.0	0.4	0.132	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	622	0.760	461	0.0	2.9	0.351	C
	C-AB	303	76	510	0.595	298	0.0	1.4	0.276	C
	C-A	652	163			652				
	A-B	0	0			0				
	A-C	878	219			878				

13:00 - 13:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	202	0.4	0.5	0.147	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	572	0.987	532	2.9	11.0	1.062	F
	C-AB	362	91	463	0.782	355	1.4	3.1	0.526	D
	C-A	779	195			779				
	A-B	0	0			0				
	A-C	1048	262			1048				

13:15 - 13:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	247	0.5	0.7	0.173	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	502	1.378	500	11.0	58.8	4.461	F
	C-AB	1397	349	1253	1.115	1338	3.1	18.0	1.311	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1284	321			1284				

13:30 - 13:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	248	62	593	0.418	248	0.7	0.7	0.174	B
	C-AB	0	0	490	0.000	0	0.0	0.0	0.000	A
	C-A	691	173			691				
	A-B	0	0			0				
	A-C	444	111			444				
20A12 - Junction 20A.1&2	B-AC	691	173	502	1.378	502	58.8	106.3	9.582	F
	C-AB	1397	349	1256	1.112	1346	18.0	30.7	2.328	F
	C-A	0	0			0				
	A-B	0	0			0				
	A-C	1284	321			1284				

13:45 - 14:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	202	51	610	0.331	203	0.7	0.5	0.148	A
	C-AB	0	0	503	0.000	0	0.0	0.0	0.000	A
	C-A	565	141			565				
	A-B	0	0			0				
	A-C	362	91			362				
20A12 - Junction 20A.1&2	B-AC	565	141	572	0.987	566	106.3	106.0	10.890	F
	C-AB	362	91	466	0.774	462	30.7	5.7	2.814	F
	C-A	779	195			779				
	A-B	0	0			0				
	A-C	1048	262			1048				

14:00 - 14:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
20A.3 - Junction 20A.3	B-AC	169	42	622	0.272	170	0.5	0.4	0.133	A
	C-AB	0	0	514	0.000	0	0.0	0.0	0.000	A
	C-A	473	118			473				
	A-B	0	0			0				
	A-C	303	76			303				
20A12 - Junction 20A.1&2	B-AC	473	118	622	0.760	617	106.0	70.0	8.593	F
	C-AB	303	76	510	0.595	320	5.7	1.5	0.341	C
	C-A	652	163			652				
	A-B	0	0			0				
	A-C	878	219			878				



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 20A.1, 20A.2, 20A.3 and 20B

Report generation date: 29/01/2018 13:12:04

- » Lane Simulation module - 2017 Baseline Traffic, AM
- » Lane Simulation module - 2017 Baseline Traffic, PM
- » Lane Simulation module - 2017 Baseline Traffic, Airport Peak
- » Lane Simulation module - 2039 Growthed Traffic, AM
- » Lane Simulation module - 2039 Growthed Traffic, PM
- » Lane Simulation module - 2039 Growthed Traffic, Airport Peak
- » Lane Simulation module - 2039 + Dev Traffic, AM
- » Lane Simulation module - 2039 + Dev Traffic, PM
- » Lane Simulation module - 2039 + Dev Traffic, Airport Peak
- » Lane Simulation module - 2039 B+Dev Net Change, AM
- » Lane Simulation module - 2039 B+Dev Net Change, PM
- » Lane Simulation module - 2039 B+Dev Net Change, Airport Peak
- » other - 2017 Baseline Traffic, AM
- » other - 2017 Baseline Traffic, PM
- » other - 2017 Baseline Traffic, Airport Peak
- » other - 2039 Growthed Traffic, AM
- » other - 2039 Growthed Traffic, PM
- » other - 2039 Growthed Traffic, Airport Peak
- » other - 2039 + Dev Traffic, AM
- » other - 2039 + Dev Traffic, PM
- » other - 2039 + Dev Traffic, Airport Peak
- » other - 2039 B+Dev Net Change, AM
- » other - 2039 B+Dev Net Change, PM
- » other - 2039 B+Dev Net Change, Airport Peak

Summary of junction performance

	AM					PM					Airport Peak				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
Lane Simulation module [Lane Simulation] - 2017 Baseline Traffic															
A - A256 North	2.8	0.10		A	%	4.1	0.12		A	%	2.7	0.10		A	%
B - A526 South	9.3	0.43		D		10.2	0.51		D		1.9	0.13		A	
C - Manston Rd West	4.1	0.63		E	[]	4.1	0.70		E	[]	1.0	0.16		A	[]
Lane Simulation module [Lane Simulation] - 2039 Growthed Traffic															
A - A256 North	9.3	0.26		C	%	54.7	1.25		F	%	11.6	0.36		C	%
B - A526 South	133.7	5.27		F		55.0	1.93		F		7.4	0.39		C	
C - Manston Rd West	30.0	4.08		F	[]	14.3	1.80		F	[]	5.2	0.66		E	[]
Lane Simulation module [Lane Simulation] - 2039 + Dev Traffic															
A - A256 North	11.6	0.33		C	%	82.0	1.88		F	%	16.1	0.44		D	%
B - A526 South	322.7	13.78		F		60.2	2.02		F		69.4	2.66		F	
C - Manston Rd West	12.3	1.44		F	[]	147.6	15.52		F	[]	7.2	0.84		F	[]
Lane Simulation module [Lane Simulation] - 2039 B+Dev Net Change															
A - A256 North	6.1	0.17		B	%	34.9	0.87		F	%	7.6	0.22		B	%
B - A526 South	242.2	10.73		F		29.3	1.10		F		55.2	2.18		F	
C - Manston Rd West	10.7	1.23		F	[]	100.6	10.33		F	[]	6.3	0.74		E	[]
other - 2017 Baseline Traffic															
A - A256 North	1.2	0.04	0.55	A	1 %	1.3	0.04	0.57	A	14 %	0.9	0.04	0.47	A	35 %
B - A526 South	1.7	0.08	0.63	A	[C - Manston	1.3	0.07	0.56	A	[C - Manston	0.7	0.05	0.42	A	[C - Manston

C - Manston Rd West	2.9	0.51	0.76	D	Rd West]	1.3	0.24	0.57	B	Rd West]	0.8	0.16	0.46	A	Rd West]
other - 2039 Growthed Traffic															
A - A256 North	2.1	0.06	0.68	A	-19 %	2.6	0.07	0.72	A	-10 %	1.8	0.06	0.65	A	0 %
B - A526 South	5.9	0.24	0.86	B	[C - Manston Rd West]	3.2	0.13	0.77	A	[C - Manston Rd West]	1.5	0.08	0.61	A	[C - Manston Rd West]
C - Manston Rd West	81.9	10.64	1.53	F	[C - Manston Rd West]	19.5	2.72	1.05	F	[C - Manston Rd West]	3.7	0.54	0.80	D	[C - Manston Rd West]
other - 2039 + Dev Traffic															
A - A256 North	2.4	0.06	0.71	A	-21 %	2.9	0.08	0.75	A	-25 %	2.2	0.06	0.69	A	-6 %
B - A526 South	25.0	0.87	0.99	F	[C - Manston Rd West]	3.5	0.14	0.78	A	[C - Manston Rd West]	2.8	0.12	0.74	A	[C - Manston Rd West]
C - Manston Rd West	91.3	11.73	1.58	F	[C - Manston Rd West]	159.4	16.97	1.74	F	[C - Manston Rd West]	10.0	1.23	0.95	F	[C - Manston Rd West]
other - 2039 B+Dev Net Change															
A - A256 North	1.9	0.06	0.66	A	-18 %	2.5	0.07	0.71	A	-21 %	1.8	0.05	0.64	A	-4 %
B - A526 South	11.2	0.43	0.93	D	[C - Manston Rd West]	2.4	0.11	0.71	A	[C - Manston Rd West]	2.4	0.11	0.71	A	[C - Manston Rd West]
C - Manston Rd West	68.5	8.02	1.37	F	[C - Manston Rd West]	112.7	10.02	1.45	F	[C - Manston Rd West]	7.0	0.87	0.90	F	[C - Manston Rd West]

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

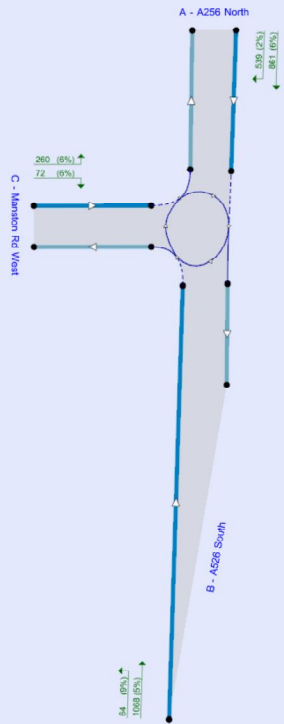
File summary

File Description

Title	Junction 20B
Location	A256 - Manston Rd West
Site number	20B
Date	04/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\jessica.elliott
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	mph	Veh	Veh	perHour	min	-Min	perMin



Flows show original traffic demand (Vehicle).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75			✓	Delay	0.85	0.60	20.00

Lane Simulation options

Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Use crossings quick response	Last run random seed	Last run number of trials	Last run time taken (s)
1.00	100000	100000	-1	3	1	✓	2117443510	329	86.98

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
D3	2017 Baseline Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D6	2039 Growthed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D9	2039 + Dev Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D12	2039 B+Dev Net Change	AM	ONE HOUR	07:30	09:00	15	✓
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	15	✓
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	15	✓

Lane Simulation module - 2017 Baseline Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.29	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D3	2017 Baseline Traffic	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 - A256 North		ONE HOUR	✓	1545	100.000
B - A526 South		ONE HOUR	✓	1132	100.000
C - Manston Rd West		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	145	861	539
B - A526 South	1068	0	64
C - Manston Rd West	260	72	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	9
C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.10	2.8	A	1415	2123
B - A526 South	0.43	9.3	D	1040	1560
C - Manston Rd West	0.63	4.1	E	306	459

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1150	287	54	1149	1111	0.0	1.3	0.063	A
B - A526 South	850	213	508	853	695	0.0	1.6	0.107	A
C - Manston Rd West	251	63	912	252	448	0.0	0.6	0.120	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1384	346	62	1387	1328	1.3	1.6	0.073	A
B - A526 South	1018	254	610	1023	839	1.6	2.5	0.156	A
C - Manston Rd West	298	74	1093	296	540	0.6	1.1	0.195	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1701	425	81	1704	1605	1.6	2.8	0.100	A
B - A526 South	1250	313	758	1236	1026	2.5	8.0	0.321	C
C - Manston Rd West	365	91	1324	361	670	1.1	3.3	0.448	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1706	427	79	1709	1624	2.8	2.8	0.102	A
B - A526 South	1250	313	762	1248	1026	8.0	9.3	0.434	D
C - Manston Rd West	368	92	1336	368	675	3.3	4.0	0.634	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1383	346	69	1383	1324	2.8	1.6	0.076	A
B - A526 South	1013	253	613	1018	839	9.3	2.7	0.202	B
C - Manston Rd West	300	75	1091	302	540	4.0	1.0	0.280	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1168	292	55	1169	1112	1.6	1.1	0.063	A
B - A526 South	856	214	519	855	706	2.7	1.7	0.113	A

C - Manston Rd West	252	63	916	251	458	1.0	0.6	0.142	A
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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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	642	1544	0.416	641	0.0	0.7	0.065	A
			2	A, C	508	1606	0.316	508	0.0	0.5	0.055	A
		2	1	(A, B, C)	1150			1149	0.0	0.1	0.002	A
	Exit	1	1		1111			1111	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	656	1088	0.603	659	0.0	1.3	0.120	A
			2	(A), B	194	1088	0.179	194	0.0	0.2	0.061	A
		2	1	(A, B, C)	850			850	0.0	0.0	0.000	A
	Exit	1	1		695			695	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	251	712	0.353	252	0.0	0.6	0.120	A
	Exit	1	1		448			448	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	775	1546	0.501	777	0.7	0.9	0.074	A
			2	A, C	610	1607	0.379	610	0.5	0.7	0.060	A
		2	1	(A, B, C)	1384			1385	0.1	0.1	0.005	A
	Exit	1	1		1328			1328	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	765	1048	0.730	770	1.3	2.1	0.181	B
			2	(A), B	253	1049	0.241	253	0.2	0.3	0.072	A
		2	1	(A, B, C)	1018			1018	0.0	0.1	0.002	A
	Exit	1	1		839			839	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	298	613	0.486	296	0.6	1.1	0.195	B
	Exit	1	1		540			540	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	945	1535	0.615	946	0.9	1.3	0.090	A
			2	A, C	758	1594	0.475	758	0.7	0.9	0.070	A
		2	1	(A, B, C)	1701			1702	0.1	0.5	0.019	A
	Exit	1	1		1605			1605	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	898	981	0.915	889	2.1	6.3	0.361	C
			2	(A), B	347	987	0.352	347	0.3	0.6	0.091	A
		2	1	(A, B, C)	1250			1245	0.1	1.1	0.034	A
	Exit	1	1		1026			1026	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	365	488	0.749	361	1.1	3.3	0.448	D
	Exit	1	1		670			670	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	945	1532	0.617	947	1.3	1.4	0.091	A
			2	A, C	762	1593	0.478	762	0.9	0.8	0.071	A
		2	1	(A, B, C)	1706			1707	0.5	0.5	0.020	A
	Exit	1	1		1624			1624	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	898	978	0.919	892	6.3	6.9	0.441	D
			2	(A), B	355	985	0.361	356	0.6	0.6	0.103	A
		2	1	(A, B, C)	1250			1253	1.1	1.8	0.089	A
	Exit	1	1		1026			1026	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	368	480	0.768	368	3.3	4.0	0.634	E
	Exit	1	1		675			675	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	771	1542	0.500	770	1.4	0.9	0.076	A

A - A256 North	Entry	1	2	A, C	612	1600	0.383	613	0.8	0.6	0.061	A
		2	1	(A, B, C)	1383			1383	0.5	0.1	0.007	A
	Exit	1	1		1324			1324	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	763	1043	0.732	766	6.9	2.4	0.229	B
			2	(A), B	251	1047	0.240	252	0.6	0.3	0.078	A
		2	1	(A, B, C)	1013			1014	1.8	0.0	0.015	A
	Exit	1	1		839			839	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	300	617	0.486	302	4.0	1.0	0.280	C
	Exit	1	1		540			540	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	649	1544	0.421	651	0.9	0.6	0.065	A
			2	A, C	519	1612	0.322	519	0.6	0.5	0.055	A
		2	1	(A, B, C)	1168			1169	0.1	0.0	0.002	A
	Exit	1	1		1112			1112	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	658	1084	0.607	657	2.4	1.5	0.128	A
			2	(A), B	198	1084	0.183	199	0.3	0.2	0.063	A
		2	1	(A, B, C)	856			856	0.0	0.0	0.000	A
	Exit	1	1		706			706	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	252	712	0.354	251	1.0	0.6	0.142	A
	Exit	1	1		458			458	0.0	0.0	0.000	A

Lane Simulation module - 2017 Baseline Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.32	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1654	100.000
B - A526 South		ONE HOUR	✓	1077	100.000
C - Manston Rd West		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	107	1037	510
B - A526 South	1026	0	51
C - Manston Rd West	219	78	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.12	4.1	A	1517	2276
B - A526 South	0.51	10.2	D	986	1479
C - Manston Rd West	0.70	4.1	E	272	408

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1252	313	58	1250	1016	0.0	1.5	0.066	A
B - A526 South	810	203	467	813	841	0.0	1.5	0.115	A
C - Manston Rd West	222	56	853	221	427	0.0	0.6	0.152	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1487	372	69	1485	1217	1.5	2.2	0.080	A
B - A526 South	965	241	553	970	1001	1.5	2.7	0.177	B
C - Manston Rd West	264	66	1022	264	502	0.6	1.1	0.235	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1822	456	85	1824	1483	2.2	3.7	0.120	A
B - A526 South	1181	295	683	1183	1227	2.7	8.8	0.388	C
C - Manston Rd West	330	82	1246	322	619	1.1	3.8	0.506	D

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1821	455	88	1816	1485	3.7	4.1	0.122	A
B - A526 South	1189	297	675	1188	1229	8.8	10.1	0.512	D
C - Manston Rd West	326	81	1245	328	618	3.8	4.0	0.699	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1483	371	70	1485	1212	4.1	2.0	0.084	A
B - A526 South	964	241	557	966	999	10.1	3.0	0.240	B
C - Manston Rd West	267	67	1015	267	508	4.0	1.2	0.358	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1240	310	59	1239	1012	2.0	1.4	0.067	A
B - A526 South	805	201	458	806	840	3.0	1.8	0.129	A

C - Manston Rd West	225	56	845	226	419	1.2	0.7	0.181	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	785	1607	0.488	783	0.0	1.0	0.070	A
			2	A, C	467	1624	0.288	467	0.0	0.4	0.052	A
		2	1	(A, B, C)	1252			1252	0.0	0.1	0.003	A
	Exit	1	1		1016			1016	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	623	995	0.626	625	0.0	1.2	0.130	A
			2	(A), B	188	994	0.189	188	0.0	0.2	0.066	A
		2	1	(A, B, C)	810			810	0.0	0.0	0.000	A
	Exit	1	1		841			841	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	222	584	0.380	221	0.0	0.6	0.152	A
	Exit	1	1		427			427	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	934	1601	0.583	932	1.0	1.5	0.082	A
			2	A, C	553	1618	0.342	553	0.4	0.5	0.057	A
		2	1	(A, B, C)	1487			1486	0.1	0.2	0.008	A
	Exit	1	1		1217			1217	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	720	963	0.748	724	1.2	2.4	0.208	B
			2	(A), B	246	960	0.256	246	0.2	0.3	0.080	A
		2	1	(A, B, C)	965			966	0.0	0.0	0.001	A
	Exit	1	1		1001			1001	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	264	513	0.513	264	0.6	1.1	0.235	B
	Exit	1	1		502			502	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1140	1591	0.716	1142	1.5	2.0	0.104	A
			2	A, C	684	1608	0.425	683	0.5	0.7	0.063	A
		2	1	(A, B, C)	1822			1824	0.2	0.9	0.031	A
	Exit	1	1		1483			1483	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	843	914	0.922	847	2.4	6.5	0.425	D
			2	(A), B	338	915	0.369	337	0.3	0.7	0.103	A
		2	1	(A, B, C)	1181			1180	0.0	1.6	0.051	A
	Exit	1	1		1227			1227	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	330	422	0.781	322	1.1	3.8	0.506	D
	Exit	1	1		619			619	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1144	1594	0.718	1142	2.0	2.2	0.105	A
			2	A, C	674	1607	0.419	675	0.7	0.7	0.064	A
		2	1	(A, B, C)	1821			1818	0.9	1.2	0.032	A
	Exit	1	1		1485			1485	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	840	917	0.916	842	6.5	7.2	0.513	D
			2	(A), B	344	918	0.374	346	0.7	0.6	0.112	A
		2	1	(A, B, C)	1189			1184	1.6	2.4	0.114	A
	Exit	1	1		1229			1229	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	326	423	0.771	328	3.8	4.0	0.699	E
	Exit	1	1		618			618	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	928	1600	0.580	928	2.2	1.4	0.085	A

A - A256 North	Entry	1	2	A, C	556	1616	0.344	557	0.7	0.5	0.056	A
		2	1	(A, B, C)	1483			1484	1.2	0.2	0.010	A
	Exit	1	1		1212			1212	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	720	961	0.749	721	7.2	2.6	0.266	C
			2	(A), B	245	958	0.256	245	0.6	0.3	0.084	A
		2	1	(A, B, C)	964			965	2.4	0.0	0.026	A
	Exit	1	1		999			999	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	267	516	0.519	267	4.0	1.2	0.358	C
	Exit	1	1		508			508	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	781	1608	0.486	781	1.4	0.9	0.071	A
			2	A, C	458	1625	0.282	458	0.5	0.4	0.052	A
		2	1	(A, B, C)	1240			1239	0.2	0.1	0.003	A
	Exit	1	1		1012			1012	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	619	1000	0.619	620	2.6	1.5	0.147	A
			2	(A), B	187	998	0.187	186	0.3	0.3	0.069	A
		2	1	(A, B, C)	805			805	0.0	0.0	0.000	A
	Exit	1	1		840			840	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	225	587	0.384	226	1.2	0.7	0.181	B
	Exit	1	1		419			419	0.0	0.0	0.000	A

Lane Simulation module - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1350	100.000
B - A526 South		ONE HOUR	✓	782	100.000
C - Manston Rd West		ONE HOUR	✓	294	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	105	786	459
B - A526 South	726	0	56
C - Manston Rd West	235	59	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	6	0	11
C - Manston Rd West	5	8	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.10	2.7	A	1242	1863
B - A526 South	0.13	1.9	A	720	1081
C - Manston Rd West	0.16	1.0	A	268	402

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1022	255	44	1021	804	0.0	1.0	0.065	A
B - A526 South	587	147	429	585	636	0.0	0.8	0.080	A
C - Manston Rd West	225	56	624	225	391	0.0	0.3	0.087	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1198	299	54	1198	949	1.0	1.5	0.074	A
B - A526 South	698	174	501	695	751	0.8	1.4	0.097	A
C - Manston Rd West	261	65	741	262	455	0.3	0.5	0.110	A

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1489	372	69	1486	1178	1.5	2.6	0.096	A
B - A526 South	870	217	626	873	929	1.4	1.9	0.123	A
C - Manston Rd West	322	81	924	323	576	0.5	0.9	0.154	A

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1502	375	65	1500	1183	2.6	2.7	0.098	A
B - A526 South	870	217	622	869	942	1.9	1.8	0.130	A
C - Manston Rd West	324	81	924	324	568	0.9	1.0	0.164	A

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1230	307	52	1233	965	2.7	1.2	0.074	A
B - A526 South	711	178	516	709	769	1.8	1.1	0.102	A
C - Manston Rd West	265	66	751	266	474	1.0	0.5	0.119	A

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1014	253	44	1013	793	1.2	1.2	0.065	A
B - A526 South	588	147	424	586	633	1.1	0.9	0.081	A

C - Manston Rd West	213	53	624	213	386	0.5	0.3	0.098	A
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	593	1469	0.404	592	0.0	0.7	0.068	A
			2	A, C	429	1517	0.283	429	0.0	0.4	0.055	A
		2	1	(A, B, C)	1022			1022	0.0	0.0	0.002	A
	Exit	1	1		804			804	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	467	1101	0.423	466	0.0	0.7	0.086	A
			2	(A), B	120	1114	0.108	119	0.0	0.1	0.057	A
		2	1	(A, B, C)	587			587	0.0	0.0	0.000	A
	Exit	1	1		636			636	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	225	870	0.258	225	0.0	0.3	0.087	A
	Exit	1	1		391			391	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	697	1457	0.479	697	0.7	1.0	0.078	A
			2	A, C	500	1513	0.330	501	0.4	0.4	0.060	A
		2	1	(A, B, C)	1198			1198	0.0	0.1	0.004	A
	Exit	1	1		949			949	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	548	1080	0.508	545	0.7	1.2	0.107	A
			2	(A), B	150	1077	0.139	149	0.1	0.2	0.062	A
		2	1	(A, B, C)	698			698	0.0	0.0	0.000	A
	Exit	1	1		751			751	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	261	807	0.324	262	0.3	0.5	0.110	A
	Exit	1	1		455			455	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	861	1452	0.594	860	1.0	1.4	0.092	A
			2	A, C	627	1505	0.417	626	0.4	0.8	0.069	A
		2	1	(A, B, C)	1489			1489	0.1	0.4	0.013	A
	Exit	1	1		1178			1178	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	668	1031	0.648	670	1.2	1.6	0.140	A
			2	(A), B	201	1029	0.195	203	0.2	0.2	0.068	A
		2	1	(A, B, C)	870			870	0.0	0.0	0.000	A
	Exit	1	1		929			929	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	322	710	0.453	323	0.5	0.9	0.154	A
	Exit	1	1		576			576	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	878	1453	0.604	878	1.4	1.4	0.093	A
			2	A, C	622	1509	0.412	622	0.8	0.7	0.068	A
		2	1	(A, B, C)	1502			1499	0.4	0.5	0.015	A
	Exit	1	1		1183			1183	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	669	1032	0.648	668	1.6	1.6	0.148	A
			2	(A), B	201	1037	0.194	201	0.2	0.2	0.067	A
		2	1	(A, B, C)	870			870	0.0	0.0	0.000	A
	Exit	1	1		942			942	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	324	709	0.457	324	0.9	1.0	0.164	A
	Exit	1	1		568			568	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	718	1461	0.491	717	1.4	0.9	0.078	A

A - A256 North	Entry	1	2	A, C	513	1513	0.339	516	0.7	0.3	0.059	A
		2	1	(A, B, C)	1230			1230	0.5	0.0	0.004	A
	Exit	1	1		965			965	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	557	1075	0.518	555	1.6	1.0	0.113	A
			2	(A), B	154	1080	0.142	154	0.2	0.1	0.061	A
		2	1	(A, B, C)	711			711	0.0	0.0	0.000	A
	Exit	1	1		769			769	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	265	801	0.331	266	1.0	0.5	0.119	A
	Exit	1	1		474			474	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	590	1461	0.404	589	0.9	0.8	0.069	A
			2	A, C	424	1522	0.278	424	0.3	0.4	0.055	A
		2	1	(A, B, C)	1014			1014	0.0	0.0	0.002	A
	Exit	1	1		793			793	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	470	1116	0.421	469	1.0	0.7	0.087	A
			2	(A), B	118	1113	0.106	117	0.1	0.1	0.057	A
		2	1	(A, B, C)	588			588	0.0	0.0	0.000	A
	Exit	1	1		633			633	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	213	871	0.244	213	0.5	0.3	0.098	A
	Exit	1	1		386			386	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	2.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00

B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D6	2039 Growthed Traffic	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 - A256 North		ONE HOUR	✓	1933	100.000
B - A526 South		ONE HOUR	✓	1416	100.000
C - Manston Rd West		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (Veh/hr)

	To

From		A - A256 North	B - A526 South	C - Manston Rd West
	A - A256 North	181	1078	674
	B - A526 South	1336	0	80
	C - Manston Rd West	326	90	0

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		A - A256 North	B - A526 South	C - Manston Rd West
	A - A256 North	2	6	2
	B - A526 South	5	0	10
C - Manston Rd West	6	6	0	

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.26	9.3	C	1772	2658
B - A526 South	5.27	133.7	F	1301	1952
C - Manston Rd West	4.08	30.0	F	381	572

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1453	363	68	1451	1387	0.0	2.0	0.078	A
B - A526 South	1069	267	644	1067	875	0.0	3.4	0.164	A
C - Manston Rd West	310	78	1143	311	568	0.0	1.2	0.194	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1739	435	78	1739	1637	2.0	3.1	0.105	A
B - A526 South	1276	319	767	1255	1050	3.4	10.1	0.369	C
C - Manston Rd West	375	94	1348	367	675	1.2	4.4	0.526	D

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2125	531	89	2115	1752	3.1	9.2	0.217	B
B - A526 South	1563	391	936	1304	1268	10.1	71.7	1.896	F
C - Manston Rd West	454	114	1429	412	810	4.4	18.6	1.911	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2128	532	90	2127	1744	9.2	9.2	0.260	C
B - A526 South	1556	389	938	1302	1279	71.7	133.7	4.766	F
C - Manston Rd West	460	115	1421	414	819	18.6	29.9	3.663	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1730	432	79	1730	1777	9.2	3.2	0.120	A
B - A526 South	1273	318	761	1407	1048	133.7	106.0	5.271	F
C - Manston Rd West	376	94	1488	368	680	29.9	25.5	4.076	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1458	364	80	1457	1657	3.2	2.0	0.081	A
B - A526 South	1070	268	647	1308	890	106.0	29.4	2.589	F
C - Manston Rd West	311	78	1372	365	583	25.5	13.3	2.736	F

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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	808	1542	0.524	808	0.0	1.1	0.077	A
			2	A, C	645	1600	0.403	644	0.0	0.7	0.062	A
	Exit	1	1	(A, B, C)	1453			1452	0.0	0.2	0.007	A
B - A526 South	Entry	1	1	A, C	798	1030	0.775	796	0.0	3.0	0.192	B
			2	(A), B	272	1031	0.263	271	0.0	0.4	0.072	A
	Exit	1	1	(A, B, C)	1069			1069	0.0	0.0	0.002	A
					875			875	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	310	588	0.528	311	0.0	1.2	0.194	B
	Exit	1	1		568			568	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	971	1535	0.633	971	1.1	1.5	0.093	A
			2	A, C	766	1595	0.481	767	0.7	0.9	0.070	A
	Exit	1	1	(A, B, C)	1739			1738	0.2	0.8	0.022	A
B - A526 South	Entry	1	1	A, C	908	979	0.928	899	3.0	7.3	0.402	C
			2	(A), B	356	978	0.364	357	0.4	0.6	0.096	A
	Exit	1	1	(A, B, C)	1276			1264	0.0	2.3	0.050	A
					1050			1050	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	375	475	0.792	367	1.2	4.4	0.526	D
	Exit	1	1		675			675	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1179	1529	0.771	1179	1.5	2.3	0.115	A
			2	A, C	935	1589	0.589	936	0.9	1.3	0.084	A
	Exit	1	1	(A, B, C)	2125			2114	0.8	5.5	0.116	A
B - A526 South	Entry	1	1	A, C	909	907	1.003	905	7.3	14.0	0.823	E
			2	(A), B	401	910	0.440	399	0.6	1.2	0.154	A
	Exit	1	1	(A, B, C)	1563			1310	2.3	56.5	1.263	F
C - Manston Rd West	Entry	1	1	A, C, B	454	430	1.056	412	4.4	18.6	1.911	F
	Exit	1	1		810			810	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1190	1526	0.780	1189	2.3	2.4	0.120	A
			2	A, C	938	1588	0.590	938	1.3	1.3	0.085	A
	Exit	1	1	(A, B, C)	2128			2127	5.5	5.5	0.155	A
B - A526 South	Entry	1	1	A, C	904	906	0.997	904	14.0	14.2	0.938	F
			2	(A), B	399	911	0.438	398	1.2	1.3	0.177	B
	Exit	1	1	(A, B, C)	1556			1303	56.5	118.3	4.067	F
C - Manston Rd West	Entry	1	1	A, C, B	460	436	1.054	414	18.6	29.9	3.663	F
	Exit	1	1		819			819	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	968	1537	0.630	969	2.4	1.4	0.095	A
			2	A, C	762	1592	0.479	761	1.3	1.0	0.072	A
	Exit	1	1	(A, B, C)	1730			1730	5.5	0.8	0.036	A
			1		1777			1777	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	971	979	0.992	977	14.2	13.5	0.874	F
			2	(A), B	427	984	0.434	430	1.3	1.1	0.161	A
	Exit	1	1	(A, B, C)	1273			1398	118.3	91.4	4.630	F
			1		1048			1048	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	376	397	0.949	368	29.9	25.5	4.076	F
	Exit	1	1		680			680	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	811	1532	0.529	809	1.4	1.1	0.080	A
			2	A, C	647	1595	0.405	647	1.0	0.7	0.063	A
	Exit	1	1	(A, B, C)	1458			1458	0.8	0.2	0.009	A
			1		1657			1657	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	906	1028	0.881	936	13.5	8.2	0.710	E
			2	(A), B	371	1032	0.359	372	1.1	0.8	0.140	A
	Exit	1	1	(A, B, C)	1070			1277	91.4	20.4	2.078	F
			1		890			890	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	311	461	0.677	365	25.5	13.3	2.736	F
	Exit	1	1		583			583	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.54	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2084	100.000
B - A526 South		ONE HOUR	✓	1357	100.000
C - Manston Rd West		ONE HOUR	✓	374	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	135	1307	642
B - A526 South	1293	0	64
C - Manston Rd West	276	98	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	1.25	54.7	F	1916	2874
B - A526 South	1.93	55.0	F	1248	1871
C - Manston Rd West	1.80	14.3	F	344	516

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1558	389	74	1561	1278	0.0	2.6	0.103	A
B - A526 South	1025	256	580	1024	1055	0.0	2.3	0.125	A
C - Manston Rd West	280	70	1072	280	532	0.0	0.8	0.138	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1872	468	91	1866	1533	2.6	5.5	0.172	B
B - A526 South	1220	305	699	1217	1258	2.3	5.3	0.238	B
C - Manston Rd West	341	85	1284	340	632	0.8	1.7	0.264	C

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2303	576	101	2209	1767	5.5	35.2	0.652	E
B - A526 South	1509	377	825	1405	1485	5.3	32.7	0.869	F
C - Manston Rd West	405	101	1481	388	749	1.7	8.8	0.951	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2309	577	103	2229	1786	35.2	54.8	1.246	F
B - A526 South	1502	376	825	1425	1508	32.7	55.0	1.930	F
C - Manston Rd West	417	104	1500	389	750	8.8	14.3	1.799	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1875	469	92	1944	1661	54.8	11.6	0.743	E
B - A526 South	1210	302	729	1327	1307	55.0	19.9	1.553	F
C - Manston Rd West	340	85	1394	359	662	14.3	5.7	1.383	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1580	395	71	1588	1286	11.6	2.7	0.145	A
B - A526 South	1020	255	584	1026	1074	19.9	2.1	0.297	C

C - Manston Rd West	280	70	1076	281	535	5.7	0.9	0.331	C
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	979	1506	0.650	981	0.0	1.6	0.098	A
			2	A, C	581	1520	0.382	580	0.0	0.6	0.065	A
		2	1	(A, B, C)	1558			1560	0.0	0.3	0.018	A
	Exit	1	1		1278			1278	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	778	1096	0.710	776	0.0	2.1	0.145	A
			2	(A), B	248	1094	0.226	248	0.0	0.2	0.064	A
		2	1	(A, B, C)	1025			1025	0.0	0.0	0.000	A
	Exit	1	1		1055			1055	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	280	667	0.419	280	0.0	0.8	0.138	A
	Exit	1	1		532			532	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1169	1495	0.782	1167	1.6	2.5	0.124	A
			2	A, C	697	1512	0.461	699	0.6	0.7	0.072	A
		2	1	(A, B, C)	1872			1866	0.3	2.4	0.067	A
	Exit	1	1		1533			1533	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	888	1043	0.852	886	2.1	4.6	0.280	C
			2	(A), B	330	1042	0.317	331	0.2	0.4	0.081	A
		2	1	(A, B, C)	1220			1219	0.0	0.4	0.011	A
	Exit	1	1		1258			1258	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	341	552	0.618	340	0.8	1.7	0.264	C
	Exit	1	1		632			632	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1382	1489	0.928	1384	2.5	3.5	0.157	A
			2	A, C	828	1505	0.551	825	0.7	1.4	0.084	A
		2	1	(A, B, C)	2303			2210	2.4	30.4	0.522	D
	Exit	1	1		1767			1767	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	989	986	1.004	975	4.6	12.9	0.645	E
			2	(A), B	433	987	0.439	430	0.4	1.1	0.122	A
		2	1	(A, B, C)	1509			1422	0.4	18.8	0.371	C
	Exit	1	1		1485			1485	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	405	440	0.920	388	1.7	8.8	0.951	F
	Exit	1	1		749			749	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1405	1490	0.943	1405	3.5	3.8	0.160	A
			2	A, C	823	1506	0.546	825	1.4	1.2	0.088	A
		2	1	(A, B, C)	2309			2228	30.4	49.7	1.113	F
	Exit	1	1		1786			1786	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	989	991	0.998	984	12.9	13.8	0.821	E
			2	(A), B	439	988	0.444	441	1.1	1.1	0.149	A
		2	1	(A, B, C)	1502			1427	18.8	40.1	1.314	F
	Exit	1	1		1508			1508	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	417	432	0.967	389	8.8	14.3	1.799	F
	Exit	1	1		750			750	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	1214	1495	0.812	1214	3.8	2.8	0.145	A

A - A256 North	Entry	1	2	A, C	728	1510	0.482	729	1.2	0.8	0.081	A
		2	1	(A, B, C)	1875			1942	49.7	8.1	0.623	E
	Exit	1	1		1661			1661	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	931	1031	0.903	950	13.8	8.4	0.695	E
			2	(A), B	375	1031	0.364	377	1.1	0.7	0.131	A
		2	1	(A, B, C)	1210			1306	40.1	10.9	1.039	F
	Exit	1	1		1307			1307	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	340	491	0.693	359	14.3	5.7	1.383	F
	Exit	1	1		662			662	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1001	1506	0.665	1003	2.8	1.6	0.106	A
			2	A, C	585	1523	0.384	584	0.8	0.7	0.065	A
		2	1	(A, B, C)	1580			1586	8.1	0.4	0.056	A
	Exit	1	1		1286			1286	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	772	1094	0.705	775	8.4	1.9	0.267	C
			2	(A), B	251	1093	0.230	252	0.7	0.2	0.080	A
		2	1	(A, B, C)	1020			1023	10.9	0.0	0.095	A
	Exit	1	1		1074			1074	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	280	668	0.420	281	5.7	0.9	0.331	C
	Exit	1	1		535			535	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.40	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1822	100.000
B - A526 South		ONE HOUR	✓	1045	100.000
C - Manston Rd West		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	609
B - A526 South	970	0	75
C - Manston Rd West	314	79	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	2
B - A526 South	6	0	11
C - Manston Rd West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.36	11.6	C	1672	2508
B - A526 South	0.39	7.4	C	959	1438
C - Manston Rd West	0.66	5.2	E	359	539

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1376	344	58	1376	1071	0.0	2.0	0.086	A
B - A526 South	788	197	568	788	867	0.0	1.4	0.105	A
C - Manston Rd West	290	73	839	290	517	0.0	0.7	0.118	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1631	408	70	1629	1277	2.0	3.3	0.119	A
B - A526 South	937	234	668	937	1032	1.4	2.5	0.155	A
C - Manston Rd West	356	89	992	355	613	0.7	1.3	0.197	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2005	501	86	1994	1557	3.3	11.1	0.277	C
B - A526 South	1149	287	818	1146	1262	2.5	7.0	0.316	C
C - Manston Rd West	429	107	1216	427	748	1.3	4.2	0.478	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2003	501	84	2010	1580	11.1	11.5	0.357	C
B - A526 South	1156	289	828	1158	1265	7.0	7.3	0.387	C
C - Manston Rd West	435	109	1235	429	752	4.2	5.2	0.661	E

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1640	410	69	1639	1282	11.5	3.5	0.154	A
B - A526 South	946	236	673	947	1035	7.3	2.5	0.195	B
C - Manston Rd West	351	88	1001	351	619	5.2	1.3	0.307	C

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1378	345	58	1377	1064	3.5	2.0	0.089	A
B - A526 South	778	195	565	779	870	2.5	1.4	0.113	A

C - Manston Rd West	293	73	828	294	515	1.3	0.7	0.142	A
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	810	1441	0.562	809	0.0	1.2	0.087	A
			2	A, C	568	1511	0.376	568	0.0	0.6	0.063	A
	Exit	1	1	(A, B, C)	1376			1377	0.0	0.2	0.009	A
			1		1071			1071	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	611	1049	0.582	613	0.0	1.2	0.118	A
			2	(A), B	176	1054	0.167	176	0.0	0.2	0.061	A
	Exit	1	1	(A, B, C)	788			788	0.0	0.0	0.000	A
			1		867			867	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	290	751	0.386	290	0.0	0.7	0.118	A
	Exit	1	1		517			517	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	961	1433	0.671	962	1.2	1.6	0.105	A
			2	A, C	668	1505	0.444	668	0.6	0.8	0.071	A
	Exit	1	1	(A, B, C)	1631			1629	0.2	0.8	0.028	A
			1		1277			1277	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	713	1010	0.705	712	1.2	2.2	0.179	B
			2	(A), B	225	1015	0.221	225	0.2	0.3	0.072	A
	Exit	1	1	(A, B, C)	937			937	0.0	0.0	0.001	A
			1		1032			1032	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	356	669	0.533	355	0.7	1.3	0.197	B
	Exit	1	1		613			613	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1176	1423	0.826	1176	1.6	2.7	0.134	A
			2	A, C	819	1494	0.548	818	0.8	1.2	0.085	A
	Exit	1	1	(A, B, C)	2005			1995	0.8	7.3	0.163	A
			1		1557			1557	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	835	947	0.882	835	2.2	5.5	0.355	C
			2	(A), B	311	953	0.327	311	0.3	0.5	0.092	A
	Exit	1	1	(A, B, C)	1149			1147	0.0	1.0	0.030	A
			1		1262			1262	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	429	543	0.790	427	1.3	4.2	0.478	D
	Exit	1	1		748			748	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1181	1429	0.826	1181	2.7	2.7	0.140	A
			2	A, C	829	1498	0.554	828	1.2	1.2	0.087	A
	Exit	1	1	(A, B, C)	2003			2010	7.3	7.6	0.239	B
			1		1580			1580	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	837	941	0.889	839	5.5	5.6	0.410	C
			2	(A), B	319	946	0.337	319	0.5	0.5	0.098	A
	Exit	1	1	(A, B, C)	1156			1155	1.0	1.2	0.062	A
			1		1265			1265	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	435	532	0.818	429	4.2	5.2	0.661	E
	Exit	1	1		752			752	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	967	1437	0.673	966	2.7	1.8	0.112	A

A - A256 North	Entry	1	2	A, C	671	1504	0.446	673	1.2	0.8	0.073	A
		2	1	(A, B, C)	1640			1638	7.6	1.0	0.059	A
	Exit	1	1		1282			1282	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	720	1007	0.716	721	5.6	2.2	0.223	B
			2	(A), B	225	1011	0.223	226	0.5	0.3	0.078	A
		2	1	(A, B, C)	946			946	1.2	0.0	0.011	A
	Exit	1	1		1035			1035	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	351	662	0.531	351	5.2	1.3	0.307	C
	Exit	1	1		619			619	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	813	1442	0.563	812	1.8	1.2	0.089	A
			2	A, C	564	1512	0.373	565	0.8	0.6	0.062	A
		2	1	(A, B, C)	1378			1377	1.0	0.3	0.010	A
	Exit	1	1		1064			1064	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	607	1053	0.577	608	2.2	1.3	0.127	A
			2	(A), B	171	1059	0.161	171	0.3	0.2	0.065	A
		2	1	(A, B, C)	778			778	0.0	0.0	0.000	A
	Exit	1	1		870			870	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	293	757	0.387	294	1.3	0.7	0.142	A
	Exit	1	1		515			515	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	5.75	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D9	2039 + Dev Traffic	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 - A256 North		ONE HOUR	✓	1999	100.000
B - A526 South		ONE HOUR	✓	1581	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	181	1078	740
	B - A526 South	1336	0	245
	C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	3
C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.33	11.6	C	1832	2749
B - A526 South	13.78	322.7	F	1451	2176
C - Manston Rd West	1.44	12.3	F	408	613

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1523	381	87	1521	1395	0.0	2.3	0.079	A
B - A526 South	1188	297	696	1194	912	0.0	6.4	0.254	C
C - Manston Rd West	340	85	1141	341	749	0.0	1.3	0.197	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1793	448	99	1793	1547	2.3	3.2	0.109	A
B - A526 South	1422	355	822	1305	1070	6.4	35.6	1.022	F
C - Manston Rd West	394	99	1254	392	874	1.3	3.9	0.505	D

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2207	552	120	2193	1602	3.2	11.3	0.257	C
B - A526 South	1756	439	1007	1227	1306	35.6	162.9	4.810	F
C - Manston Rd West	488	122	1240	482	995	3.9	10.0	1.079	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2188	547	126	2192	1593	11.3	11.6	0.326	C
B - A526 South	1723	431	1019	1227	1299	162.9	289.9	10.950	F
C - Manston Rd West	489	122	1236	483	1010	10.0	12.3	1.439	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1799	450	103	1797	1572	11.6	3.7	0.139	A
B - A526 South	1426	356	826	1313	1074	289.9	322.6	13.781	F
C - Manston Rd West	403	101	1270	405	870	12.3	5.8	1.013	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1484	371	87	1487	1568	3.7	2.2	0.085	A
B - A526 South	1196	299	681	1399	893	322.6	276.5	11.927	F

C - Manston Rd West	335	84	1317	339	763	5.8	3.3	0.624	E
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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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	826	1531	0.539	825	0.0	1.3	0.078	A
			2	A, C	696	1590	0.438	696	0.0	0.8	0.065	A
		2	1	(A, B, C)	1523			1522	0.0	0.3	0.007	A
	Exit	1	1		1395			1395	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	892	1018	0.877	897	0.0	5.3	0.285	C
			2	(A), B	295	1011	0.292	297	0.0	0.3	0.078	A
		2	1	(A, B, C)	1188			1187	0.0	0.7	0.017	A
	Exit	1	1		912			912	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	340	592	0.575	341	0.0	1.3	0.197	B
	Exit	1	1		749			749	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	972	1524	0.637	971	1.3	1.5	0.093	A
			2	A, C	820	1583	0.518	822	0.8	1.0	0.076	A
		2	1	(A, B, C)	1793			1792	0.3	0.8	0.024	A
	Exit	1	1		1547			1547	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	959	961	0.999	951	5.3	13.0	0.682	E
			2	(A), B	355	956	0.371	354	0.3	0.8	0.114	A
		2	1	(A, B, C)	1422			1314	0.7	21.8	0.480	D
	Exit	1	1		1070			1070	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	394	528	0.744	392	1.3	3.9	0.505	D
	Exit	1	1		874			874	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1188	1511	0.786	1186	1.5	2.5	0.117	A
			2	A, C	1009	1572	0.642	1007	1.0	1.6	0.090	A
		2	1	(A, B, C)	2207			2197	0.8	7.2	0.152	A
	Exit	1	1		1602			1602	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	889	885	1.005	889	13.0	14.3	0.948	F
			2	(A), B	338	876	0.385	338	0.8	0.9	0.150	A
		2	1	(A, B, C)	1756			1226	21.8	147.6	4.078	F
	Exit	1	1		1306			1306	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	488	536	0.914	482	3.9	10.0	1.079	F
	Exit	1	1		995			995	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1174	1507	0.779	1173	2.5	2.3	0.119	A
			2	A, C	1018	1566	0.651	1019	1.6	1.5	0.094	A
		2	1	(A, B, C)	2188			2192	7.2	7.7	0.219	B
	Exit	1	1		1593			1593	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	890	876	1.016	890	14.3	14.7	0.962	F
			2	(A), B	337	874	0.385	337	0.9	0.9	0.158	A
		2	1	(A, B, C)	1723			1227	147.6	274.6	10.231	F
	Exit	1	1		1299			1299	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	489	540	0.908	483	10.0	12.3	1.439	F
	Exit	1	1		1010			1010	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	971	1519	0.639	971	2.3	1.5	0.100	A

A - A256 North	Entry	1	2	A, C	827	1577	0.524	826	1.5	1.2	0.080	A
		2	1	(A, B, C)	1799			1799	7.7	1.0	0.049	A
	Exit	1	1		1572			1572	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	948	959	0.989	948	14.7	14.3	0.916	F
			2	(A), B	368	956	0.385	365	0.9	1.0	0.148	A
		2	1	(A, B, C)	1426			1316	274.6	307.2	13.145	F
	Exit	1	1		1074			1074	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	403	519	0.776	405	12.3	5.8	1.013	F
	Exit	1	1		870			870	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	803	1532	0.524	806	1.5	1.1	0.081	A
			2	A, C	682	1588	0.430	681	1.2	0.9	0.067	A
		2	1	(A, B, C)	1484			1485	1.0	0.2	0.011	A
	Exit	1	1		1568			1568	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	1015	1021	0.995	1016	14.3	14.3	0.853	F
			2	(A), B	383	1016	0.377	383	1.0	0.8	0.134	A
		2	1	(A, B, C)	1196			1398	307.2	261.3	11.445	F
	Exit	1	1		893			893	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	335	491	0.682	339	5.8	3.3	0.624	E
	Exit	1	1		763			763	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	3.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2092	100.000
B - A526 South		ONE HOUR	✓	1381	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	135	1307	650
	B - A526 South	1293	0	88
	C - Manston Rd West	342	280	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	1	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	1.88	82.0	F	1919	2879
B - A526 South	2.02	60.2	F	1275	1913
C - Manston Rd West	15.52	147.6	F	570	855

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1583	396	214	1583	1342	0.0	3.4	0.114	A
B - A526 South	1039	260	592	1043	1205	0.0	2.4	0.133	A
C - Manston Rd West	476	119	1079	477	556	0.0	2.5	0.254	C

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1867	467	228	1884	1580	3.4	7.2	0.234	B
B - A526 South	1252	313	710	1255	1402	2.4	5.4	0.239	B
C - Manston Rd West	566	141	1296	512	668	2.5	14.2	0.992	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2289	572	198	2160	1722	7.2	49.9	0.898	F
B - A526 South	1536	384	810	1429	1549	5.4	35.3	0.931	F
C - Manston Rd West	680	170	1473	447	765	14.2	67.8	5.375	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2294	573	204	2197	1722	49.9	82.1	1.882	F
B - A526 South	1532	383	835	1420	1566	35.3	60.0	2.025	F
C - Manston Rd West	680	170	1476	450	780	67.8	125.9	12.825	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1889	472	220	2028	1659	82.1	31.8	1.486	F
B - A526 South	1245	311	757	1349	1491	60.0	26.4	1.773	F
C - Manston Rd West	551	138	1388	491	719	125.9	147.6	15.518	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1594	398	285	1615	1467	31.8	4.0	0.359	C
B - A526 South	1047	262	606	1075	1295	26.4	3.0	0.462	D

C - Manston Rd West	463	116	1110	642	570	147.6	117.0	11,573	F
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	991	1431	0.693	991	0.0	2.0	0.106	A
			2	A, C	592	1444	0.410	592	0.0	0.7	0.068	A
		2	1	(A, B, C)	1583			1584	0.0	0.8	0.022	A
	Exit	1	1		1342			1342	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	787	1090	0.722	791	0.0	2.1	0.154	A
			2	(A), B	251	1093	0.230	252	0.0	0.2	0.065	A
		2	1	(A, B, C)	1039			1039	0.0	0.0	0.001	A
	Exit	1	1		1205			1205	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	476	669	0.711	477	0.0	2.5	0.254	C
	Exit	1	1		556			556	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1172	1420	0.825	1174	2.0	2.8	0.141	A
			2	A, C	711	1434	0.496	710	0.7	1.0	0.078	A
		2	1	(A, B, C)	1867			1883	0.8	3.4	0.116	A
	Exit	1	1		1580			1580	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	912	1039	0.877	913	2.1	4.7	0.282	C
			2	(A), B	340	1038	0.327	342	0.2	0.4	0.082	A
		2	1	(A, B, C)	1252			1251	0.0	0.4	0.010	A
	Exit	1	1		1402			1402	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	566	548	1.035	512	2.5	14.2	0.992	F
	Exit	1	1		668			668	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1351	1437	0.940	1350	2.8	4.0	0.169	B
			2	A, C	810	1453	0.558	810	1.0	1.3	0.091	A
		2	1	(A, B, C)	2289			2162	3.4	44.7	0.757	E
	Exit	1	1		1722			1722	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	1001	994	1.007	990	4.7	12.9	0.644	E
			2	(A), B	440	996	0.442	439	0.4	1.1	0.119	A
		2	1	(A, B, C)	1536			1441	0.4	21.4	0.432	D
	Exit	1	1		1549			1549	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	680	448	1.520	447	14.2	67.8	5.375	F
	Exit	1	1		765			765	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1361	1434	0.949	1362	4.0	3.8	0.171	B
			2	A, C	834	1447	0.576	835	1.3	1.2	0.093	A
		2	1	(A, B, C)	2294			2195	44.7	77.0	1.740	F
	Exit	1	1		1722			1722	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	994	985	1.010	990	12.9	14.0	0.809	E
			2	(A), B	434	983	0.442	430	1.1	1.4	0.143	A
		2	1	(A, B, C)	1532			1429	21.4	44.7	1.414	F
	Exit	1	1		1566			1566	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	680	448	1.518	450	67.8	125.9	12.825	F
	Exit	1	1		780			780	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	1269	1427	0.889	1271	3.8	3.4	0.165	A

A - A256 North	Entry	1	2	A, C	757	1440	0.526	757	1.2	1.1	0.089	A
		2	1	(A, B, C)	1889			2027	77.0	27.3	1.350	F
	Exit	1	1		1659			1659	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	948	1018	0.932	964	14.0	9.2	0.708	E
			2	(A), B	383	1019	0.376	385	1.4	0.8	0.133	A
		2	1	(A, B, C)	1245			1331	44.7	16.4	1.246	F
	Exit	1	1		1491			1491	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	551	496	1.111	491	125.9	147.6	15.518	F
	Exit	1	1		719			719	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1011	1390	0.727	1010	3.4	2.0	0.131	A
			2	A, C	605	1404	0.431	606	1.1	0.6	0.078	A
		2	1	(A, B, C)	1594			1616	27.3	1.3	0.248	B
	Exit	1	1		1467			1467	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	797	1085	0.734	809	9.2	2.5	0.350	C
			2	(A), B	265	1082	0.245	266	0.8	0.3	0.089	A
		2	1	(A, B, C)	1047			1062	16.4	0.2	0.202	B
	Exit	1	1		1295			1295	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	463	652	0.712	642	147.6	117.0	11.573	F
	Exit	1	1		570			570	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.26	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1894	100.000
B - A526 South		ONE HOUR	✓	1240	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	140	1073	681
	B - A526 South	970	0	270
	C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	1
B - A526 South	6	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.44	16.1	D	1739	2609
B - A526 South	2.66	69.4	F	1137	1706
C - Manston Rd West	0.84	7.2	F	430	644

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1427	357	98	1427	1095	0.0	2.1	0.089	A
B - A526 South	941	235	616	939	908	0.0	2.5	0.142	A
C - Manston Rd West	350	87	844	349	712	0.0	0.9	0.132	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1710	428	119	1707	1301	2.1	3.9	0.128	A
B - A526 South	1119	280	741	1111	1084	2.5	6.3	0.274	C
C - Manston Rd West	425	106	995	424	857	0.9	1.8	0.235	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2071	518	142	2051	1487	3.9	14.5	0.339	C
B - A526 South	1363	341	887	1236	1307	6.3	36.7	1.088	F
C - Manston Rd West	517	129	1122	507	1000	1.8	6.2	0.577	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2090	523	144	2085	1495	14.5	16.0	0.437	D
B - A526 South	1362	340	906	1237	1323	36.7	69.4	2.660	F
C - Manston Rd West	513	128	1125	514	1017	6.2	7.2	0.842	F

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1703	426	120	1705	1408	16.0	3.9	0.193	B
B - A526 South	1103	276	744	1244	1080	69.4	31.6	2.390	F
C - Manston Rd West	425	106	1102	425	887	7.2	3.4	0.527	D

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1436	359	100	1439	1108	3.9	2.0	0.095	A
B - A526 South	933	233	626	965	913	31.6	3.9	0.596	E

C - Manston Rd West	349	87	858	350	733	3.4	1.0	0.222	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	812	1424	0.570	810	0.0	1.2	0.089	A
			2	A, C	616	1504	0.409	616	0.0	0.7	0.065	A
	Exit	1	1	(A, B, C)	1427			1427	0.0	0.3	0.010	A
			1		1095			1095	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	748	1046	0.715	747	0.0	2.3	0.161	A
			2	(A), B	193	1035	0.186	192	0.0	0.2	0.065	A
	Exit	1	1	(A, B, C)	941			941	0.0	0.0	0.000	A
			1		908			908	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	350	755	0.463	349	0.0	0.9	0.132	A
	Exit	1	1		712			712	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	965	1408	0.686	966	1.2	1.8	0.109	A
			2	A, C	741	1490	0.498	741	0.7	0.9	0.077	A
	Exit	1	1	(A, B, C)	1710			1707	0.3	1.2	0.033	A
			1		1301			1301	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	863	993	0.870	859	2.3	5.3	0.309	C
			2	(A), B	251	984	0.255	252	0.2	0.3	0.079	A
	Exit	1	1	(A, B, C)	1119			1114	0.0	0.7	0.016	A
			1		1084			1084	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	425	670	0.635	424	0.9	1.8	0.235	B
	Exit	1	1		857			857	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1167	1396	0.836	1165	1.8	2.8	0.136	A
			2	A, C	888	1476	0.602	887	0.9	1.4	0.095	A
	Exit	1	1	(A, B, C)	2071			2056	1.2	10.3	0.221	B
			1		1487			1487	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	934	934	1.002	923	5.3	13.0	0.697	E
			2	(A), B	315	924	0.341	312	0.3	0.8	0.112	A
	Exit	1	1	(A, B, C)	1363			1250	0.7	23.0	0.524	D
			1		1307			1307	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	517	601	0.860	507	1.8	6.2	0.577	D
	Exit	1	1		1000			1000	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1177	1394	0.845	1180	2.8	2.7	0.142	A
			2	A, C	907	1476	0.614	906	1.4	1.5	0.098	A
	Exit	1	1	(A, B, C)	2090			2084	10.3	11.8	0.314	C
			1		1495			1495	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	926	926	1.000	923	13.0	13.9	0.874	F
			2	(A), B	313	921	0.340	313	0.8	0.7	0.128	A
	Exit	1	1	(A, B, C)	1362			1239	23.0	54.9	1.972	F
			1		1323			1323	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	513	598	0.857	514	6.2	7.2	0.842	F
	Exit	1	1		1017			1017	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	962	1413	0.681	961	2.7	1.8	0.115	A

A - A256 North	Entry	1	2	A, C	744	1492	0.499	744	1.5	1.0	0.082	A
		2	1	(A, B, C)	1703			1706	11.8	1.1	0.092	A
	Exit	1	1		1408			1408	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	929	992	0.938	945	13.9	9.8	0.754	E
			2	(A), B	299	979	0.306	300	0.7	0.5	0.120	A
		2	1	(A, B, C)	1103			1229	54.9	21.3	1.813	F
	Exit	1	1		1080			1080	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	425	609	0.697	425	7.2	3.4	0.527	D
	Exit	1	1		887			887	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	811	1421	0.571	813	1.8	1.1	0.092	A
			2	A, C	626	1500	0.417	626	1.0	0.7	0.068	A
		2	1	(A, B, C)	1436			1438	1.1	0.2	0.013	A
	Exit	1	1		1108			1108	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	755	1046	0.722	765	9.8	2.8	0.369	C
			2	(A), B	199	1034	0.193	200	0.5	0.2	0.086	A
		2	1	(A, B, C)	933			955	21.3	0.9	0.322	C
	Exit	1	1		913			913	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	349	745	0.468	350	3.4	1.0	0.222	B
	Exit	1	1		733			733	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	4.45	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50

C - Manston Rd West	Evenly split	10.00
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Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
		1	✓		✓
B - A526 South	1 [Give-way line]	1		✓	
		2	✓		
	2	1	✓	✓	✓
		1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
		1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
		1			
C - Manston Rd West	1 [Give-way line]	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
D12	2039 B+Dev Net Change	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 - A256 North		ONE HOUR	✓	1876	100.000
B - A526 South		ONE HOUR	✓	1499	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A - A256 North	B - A526 South	C - Manston Rd West

Arm	Demand (Veh/hr)	Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	(exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1403	351	82	1404	1566	2.6	1.7	0.074	A
B - A526 South	1136	284	691	1400	795	242.3	177.6	8.815	F
C - Manston Rd West	336	84	1312	337	779	5.8	2.9	0.561	D

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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	715	1548	0.462	715	0.0	0.8	0.070	A
			2	A, C	694	1592	0.436	693	0.0	0.8	0.064	A
	Exit	1	1	(A, B, C)	1410			1409	0.0	0.1	0.004	A
B - A526 South	Entry	1	1	A, C	858	1025	0.837	860	0.0	4.0	0.246	B
			2	(A), B	273	1024	0.266	273	0.0	0.3	0.074	A
	Exit	1	1	(A, B, C)	1131			1131	0.0	0.2	0.007	A
			1	1		798			798	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	335	627	0.535	335	0.0	1.2	0.181	B
	Exit	1	1		744			744	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	853	1538	0.554	854	0.8	1.1	0.082	A
			2	A, C	824	1582	0.521	823	0.8	1.1	0.076	A
	Exit	1	1	(A, B, C)	1676			1677	0.1	0.4	0.016	A
B - A526 South	Entry	1	1	A, C	951	970	0.980	940	4.0	11.2	0.583	D
			2	(A), B	344	968	0.355	343	0.3	0.7	0.106	A
	Exit	1	1	(A, B, C)	1358			1295	0.2	11.7	0.246	B
			1	1		955			955	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	399	541	0.736	397	1.2	3.2	0.407	C
	Exit	1	1		864			864	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1054	1522	0.693	1053	1.1	1.8	0.102	A
			2	A, C	1011	1569	0.644	1015	1.1	1.4	0.093	A
	Exit	1	1	(A, B, C)	2064			2065	0.4	2.5	0.068	A
B - A526 South	Entry	1	1	A, C	893	886	1.007	892	11.2	14.4	0.933	F
			2	(A), B	335	884	0.379	334	0.7	0.9	0.148	A
	Exit	1	1	(A, B, C)	1655			1228	11.7	110.6	2.907	F
C - Manston Rd West	Entry	1	1	A, C, B	1176			1176	0.0	0.0	0.000	A
	Exit	1	1		489	551	0.887	484	3.2	8.6	0.945	F
					1016			1016	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1054	1523	0.692	1055	1.8	1.7	0.102	A
			2	A, C	1007	1567	0.643	1007	1.4	1.6	0.094	A
	Exit	1	1	(A, B, C)	2062			2061	2.5	2.8	0.076	A
B - A526 South	Entry	1	1	A, C	1581			1581	0.0	0.0	0.000	A
			2	(A), B	888	890	0.999	889	14.4	14.6	0.975	F
	Exit	1	1	(A, B, C)	331	888	0.373	329	0.9	1.0	0.155	A
C - Manston Rd West	Entry	1	1	A, C, B	1645			1219	110.6	217.6	7.955	F
	Exit	1	1		1179			1179	0.0	0.0	0.000	A
					498	555	0.898	490	8.6	10.6	1.228	F
					1010			1010	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	856	1532	0.559	856	1.7	1.1	0.085	A
			2	A, C	836	1582	0.529	836	1.6	1.0	0.078	A
		1	(A, B, C)	1693			1693	2.8	0.4	0.019	A	
	Exit	1	1		1565			1565	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	959	964	0.995	958	14.6	14.4	0.909	F
			2	(A), B	356	962	0.370	356	1.0	0.8	0.145	A
		2	1	(A, B, C)	1345			1315	217.6	227.0	10.062	F
	Exit	1	1		959			959	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	400	530	0.754	407	10.6	5.8	0.975	F
	Exit	1	1		890			890	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	713	1549	0.460	713	1.1	0.9	0.071	A
			2	A, C	691	1593	0.434	691	1.0	0.7	0.067	A
		1	(A, B, C)	1403			1404	0.4	0.1	0.005	A	
	Exit	1	1		1566			1566	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	1020	1026	0.994	1021	14.4	14.5	0.854	F
			2	(A), B	380	1021	0.372	379	0.8	0.9	0.132	A
		2	1	(A, B, C)	1136			1400	227.0	162.3	8.198	F
	Exit	1	1		795			795	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	336	503	0.668	337	5.8	2.9	0.561	D
	Exit	1	1		779			779	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	2.47	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50

C - Manston Rd West	Evenly split	10.00
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Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
		1	✓		✓
B - A526 South	1 [Give-way line]	1		✓	
		2		✓	
	2	1	✓	✓	✓
		1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
		1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
		1			
C - Manston Rd West	1 [Give-way line]	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
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1980	100.000
B - A526 South		ONE HOUR	✓	1253	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A - A256 North	B - A526 South	C - Manston Rd West

Arm	Demand (Veh/hr)	Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	(exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1491	373	315	1490	1377	6.9	3.1	0.128	A
B - A526 South	949	237	582	952	1223	6.0	1.9	0.153	A
C - Manston Rd West	475	119	987	705	547	100.6	48.6	6.359	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	901	1429	0.630	901	0.0	1.5	0.098	A
			2	A, C	592	1445	0.410	591	0.0	0.7	0.069	A
	Exit	1	1	(A, B, C)	1490			1493	0.0	0.4	0.015	A
B - A526 South	Entry	1	1	A, C	721	1090	0.661	718	0.0	1.8	0.128	A
			2	(A), B	221	1090	0.203	221	0.0	0.2	0.063	A
	Exit	1	1	(A, B, C)	942			942	0.0	0.0	0.000	A
			1	1		1115			1115	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	475	727	0.653	477	0.0	1.8	0.196	B
	Exit	1	1		557			557	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1082	1412	0.767	1083	1.5	2.3	0.126	A
			2	A, C	705	1426	0.494	703	0.7	0.9	0.081	A
	Exit	1	1	(A, B, C)	1787			1787	0.4	2.0	0.061	A
B - A526 South	Entry	1	1	A, C	834	1042	0.800	837	1.8	3.4	0.230	B
			2	(A), B	287	1041	0.275	287	0.2	0.4	0.077	A
	Exit	1	1	(A, B, C)	1119			1121	0.0	0.1	0.004	A
			1	1		1328			1328	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	567	621	0.913	550	1.8	8.1	0.637	E
	Exit	1	1		661			661	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1287	1422	0.905	1285	2.3	3.5	0.160	A
			2	A, C	836	1434	0.583	836	0.9	1.4	0.093	A
	Exit	1	1	(A, B, C)	2182			2124	2.0	22.3	0.426	D
B - A526 South	Entry	1	1	A, C	944	984	0.960	933	3.4	10.2	0.522	D
			2	(A), B	391	987	0.396	390	0.4	0.7	0.104	A
	Exit	1	1	(A, B, C)	1379			1335	0.1	7.9	0.154	A
			1	1		1512			1512	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	679	507	1.338	504	8.1	49.8	3.454	F
	Exit	1	1		790			790	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1298	1421	0.914	1298	3.5	3.5	0.163	A
			2	A, C	850	1435	0.592	851	1.4	1.3	0.098	A
	Exit	1	1	(A, B, C)	2181			2148	22.3	30.2	0.737	E
B - A526 South	Entry	1	1	A, C	950	976	0.973	952	10.2	11.5	0.697	E
			2	(A), B	402	977	0.412	402	0.7	0.9	0.123	A
	Exit	1	1	(A, B, C)	1384			1352	7.9	16.9	0.566	D
			1	1		1526			1526	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	689	488	1.413	492	49.8	99.4	9.024	F
	Exit	1	1		803			803	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1098	1401	0.783	1098	3.5	2.5	0.142	A
			2	A, C	724	1416	0.512	724	1.3	1.0	0.088	A
		2	(A, B, C)	1790			1822	30.2	3.4	0.322	C	
	Exit	1	1		1540			1540	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	855	1034	0.827	866	11.5	4.3	0.455	D
			2	(A), B	303	1033	0.294	303	0.9	0.4	0.100	A
		2	(A, B, C)	1128			1158	16.9	1.4	0.311	C	
	Exit	1	1		1358			1358	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	553	593	0.930	586	99.4	100.6	10.325	F
	Exit	1	1		678			678	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	909	1373	0.662	908	2.5	1.8	0.111	A
			2	A, C	584	1387	0.421	582	1.0	0.7	0.075	A
		2	(A, B, C)	1491			1493	3.4	0.6	0.032	A	
	Exit	1	1		1377			1377	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	723	1093	0.662	727	4.3	1.6	0.166	A
			2	(A), B	225	1094	0.206	225	0.4	0.3	0.071	A
		2	(A, B, C)	949			949	1.4	0.0	0.013	A	
	Exit	1	1		1223			1223	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	475	720	0.660	705	100.6	48.6	6.359	F
	Exit	1	1		547			547	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1791	100.000
B - A526 South		ONE HOUR	✓	1203	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	970	681
B - A526 South	933	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	1
B - A526 South	5	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.22	7.6	B	1643	2465
B - A526 South	2.18	55.2	F	1107	1661
C - Manston Rd West	0.74	6.3	E	426	640

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1354	339	97	1354	1067	0.0	1.9	0.080	A
B - A526 South	915	229	622	914	829	0.0	2.2	0.134	A
C - Manston Rd West	349	87	815	349	721	0.0	0.9	0.129	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1604	401	118	1606	1270	1.9	2.9	0.106	A
B - A526 South	1084	271	740	1082	984	2.2	4.9	0.248	B
C - Manston Rd West	419	105	970	419	852	0.9	1.7	0.221	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1962	490	140	1965	1474	2.9	6.8	0.197	B
B - A526 South	1332	333	901	1233	1204	4.9	31.8	0.970	F
C - Manston Rd West	514	129	1108	506	1027	1.7	6.0	0.560	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1971	493	142	1966	1496	6.8	7.6	0.221	B
B - A526 South	1330	333	900	1246	1207	31.8	55.2	2.183	F
C - Manston Rd West	511	128	1124	514	1022	6.0	6.3	0.739	E

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1614	404	119	1619	1352	7.6	2.7	0.115	A
B - A526 South	1076	269	742	1184	996	55.2	19.4	1.686	F
C - Manston Rd West	418	104	1046	424	880	6.3	2.2	0.435	D

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1354	339	98	1353	1069	2.7	1.9	0.081	A
B - A526 South	907	227	621	923	831	19.4	2.4	0.365	C

C - Manston Rd West	348	87	818	349	725	2.2	0.9	0.185	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	732	1448	0.505	732	0.0	1.0	0.080	A
			2	A, C	623	1502	0.415	622	0.0	0.8	0.067	A
		2	(A, B, C)	1354			1355	0.0	0.1	0.006	A	
	Exit	1	1		1067			1067	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	732	1050	0.697	731	0.0	2.0	0.150	A
			2	(A), B	182	1045	0.175	182	0.0	0.2	0.064	A
		2	(A, B, C)	915			914	0.0	0.0	0.000	A	
	Exit	1	1		829			829	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	349	773	0.451	349	0.0	0.9	0.129	A
	Exit	1	1		721			721	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	865	1437	0.602	866	1.0	1.3	0.096	A
			2	A, C	739	1490	0.496	740	0.8	1.0	0.077	A
		2	(A, B, C)	1604			1604	0.1	0.5	0.019	A	
	Exit	1	1		1270			1270	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	840	1001	0.839	839	2.0	4.3	0.284	C
			2	(A), B	243	994	0.245	243	0.2	0.3	0.077	A
		2	(A, B, C)	1084			1083	0.0	0.2	0.009	A	
	Exit	1	1		984			984	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	419	687	0.610	419	0.9	1.7	0.221	B
	Exit	1	1		852			852	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1064	1426	0.747	1063	1.3	2.3	0.121	A
			2	A, C	900	1478	0.609	901	1.0	1.3	0.094	A
		2	(A, B, C)	1962			1964	0.5	3.3	0.089	A	
	Exit	1	1		1474			1474	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	934	933	1.001	925	4.3	12.6	0.669	E
			2	(A), B	309	927	0.334	308	0.3	0.7	0.109	A
		2	(A, B, C)	1332			1244	0.2	18.6	0.426	D	
	Exit	1	1		1204			1204	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	514	611	0.841	506	1.7	6.0	0.560	D
	Exit	1	1		1027			1027	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1067	1425	0.749	1066	2.3	2.2	0.123	A
			2	A, C	901	1479	0.610	900	1.3	1.5	0.096	A
		2	(A, B, C)	1971			1968	3.3	3.9	0.111	A	
	Exit	1	1		1496			1496	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	937	933	1.005	931	12.6	13.8	0.851	F
			2	(A), B	316	931	0.339	314	0.7	0.8	0.123	A
		2	(A, B, C)	1330			1253	18.6	40.7	1.512	F	
	Exit	1	1		1207			1207	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	511	604	0.846	514	6.0	6.3	0.739	E
	Exit	1	1		1022			1022	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	876	1435	0.610	877	2.2	1.3	0.099	A

A - A256 North	Entry	1	2	A, C	741	1491	0.497	742	1.5	0.9	0.080	A
		2	1	(A, B, C)	1614			1616	3.9	0.5	0.025	A
	Exit	1	1		1352			1352	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	882	1002	0.880	904	13.8	7.7	0.689	E
			2	(A), B	279	994	0.281	280	0.8	0.5	0.107	A
		2	1	(A, B, C)	1076			1161	40.7	11.3	1.159	F
	Exit	1	1		996			996	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	418	648	0.645	424	6.3	2.2	0.435	D
	Exit	1	1		880			880	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	733	1449	0.506	733	1.3	1.1	0.082	A
			2	A, C	621	1502	0.413	621	0.9	0.7	0.068	A
		2	1	(A, B, C)	1354			1354	0.5	0.1	0.006	A
	Exit	1	1		1069			1069	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	730	1052	0.694	738	7.7	2.0	0.281	C
			2	(A), B	185	1050	0.176	185	0.5	0.2	0.076	A
		2	1	(A, B, C)	907			915	11.3	0.2	0.147	A
	Exit	1	1		831			831	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	348	773	0.450	349	2.2	0.9	0.185	B
	Exit	1	1		725			725	0.0	0.0	0.000	A

other - 2017 Baseline Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.11	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2017 Baseline Traffic	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 - A256 North		ONE HOUR	✓	1545	100.000
B - A526 South		ONE HOUR	✓	1132	100.000
C - Manston Rd West		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	145	861	539
B - A526 South	1068	0	64
C - Manston Rd West	260	72	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	9
C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.55	0.04	1.2	A	1418	2127
B - A526 South	0.63	0.08	1.7	A	1039	1558
C - Manston Rd West	0.76	0.51	2.9	D	305	457

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 (min)	LOS
A - A256 North	1163	291	54	3151	0.369	1161	1105	0.0	0.6	0.030	A
B - A526 South	852	213	514	2174	0.392	850	701	0.0	0.6	0.045	A
C - Manston Rd West	250	62	911	714	0.350	248	453	0.0	0.5	0.128	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 (min)	LOS
A - A256 North	1389	347	64	3138	0.443	1388	1322	0.6	0.8	0.034	A
B - A526 South	1018	254	615	2089	0.487	1016	838	0.6	0.9	0.056	A
C - Manston Rd West	298	75	1089	616	0.484	297	542	0.5	0.9	0.187	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 (min)	LOS
A - A256 North	1701	425	78	3123	0.545	1699	1613	0.8	1.2	0.042	A
B - A526 South	1246	312	752	1972	0.632	1243	1025	0.9	1.7	0.082	A
C - Manston Rd West	366	91	1333	483	0.756	358	663	0.9	2.8	0.455	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 (min)	LOS
A - A256 North	1701	425	79	3121	0.545	1701	1621	1.2	1.2	0.042	A
B - A526 South	1246	312	753	1971	0.632	1246	1027	1.7	1.7	0.083	A

C - Manston Rd West	366	91	1335	482	0.759	365	664	2.8	2.9	0.506	D
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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 (min)	LOS
A - A256 North	1389	347	66	3136	0.443	1391	1333	1.2	0.8	0.034	A
B - A526 South	1018	254	616	2088	0.487	1021	841	1.7	1.0	0.056	A
C - Manston Rd West	298	75	1093	614	0.486	306	543	2.9	1.0	0.200	B

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 (min)	LOS
A - A256 North	1163	291	55	3150	0.369	1164	1112	0.8	0.6	0.030	A
B - A526 South	852	213	515	2173	0.392	853	703	1.0	0.6	0.046	A
C - Manston Rd West	250	62	914	712	0.351	252	454	1.0	0.5	0.131	A

other - 2017 Baseline Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1654	100.000
B - A526 South		ONE HOUR	✓	1077	100.000
C - Manston Rd West		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	107	1037	510
B - A526 South	1026	0	51
C - Manston Rd West	219	78	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.57	0.04	1.3	A	1518	2277
B - A526 South	0.56	0.07	1.3	A	988	1482
C - Manston Rd West	0.57	0.24	1.3	B	273	409

Main Results for each time segment

16:30 - 16:45

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 (min)	LOS
A - A256 North	1245	311	58	3228	0.386	1243	1014	0.0	0.6	0.030	A
B - A526 South	811	203	464	2291	0.354	809	837	0.0	0.5	0.040	A
C - Manston Rd West	224	56	851	793	0.282	222	421	0.0	0.4	0.105	A

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 (min)	LOS
A - A256 North	1487	372	70	3215	0.463	1486	1214	0.6	0.9	0.035	A
B - A526 South	968	242	554	2212	0.438	967	1002	0.5	0.8	0.048	A
C - Manston Rd West	267	67	1018	700	0.382	266	504	0.4	0.6	0.138	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 (min)	LOS
A - A256 North	1821	455	85	3196	0.570	1819	1485	0.9	1.3	0.044	A
B - A526 South	1186	296	679	2104	0.563	1184	1226	0.8	1.3	0.065	A
C - Manston Rd West	327	82	1245	573	0.571	324	617	0.6	1.3	0.239	B

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 (min)	LOS
A - A256 North	1821	455	86	3195	0.570	1821	1488	1.3	1.3	0.044	A
B - A526 South	1186	296	679	2104	0.564	1186	1228	1.3	1.3	0.065	A

C - Manston Rd West	327	82	1247	572	0.572	327	618	1.3	1.3	0.245	B
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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 (min)	LOS
A - A256 North	1487	372	71	3213	0.463	1489	1219	1.3	0.9	0.035	A
B - A526 South	968	242	555	2211	0.438	970	1004	1.3	0.8	0.048	A
C - Manston Rd West	267	67	1021	698	0.382	270	505	1.3	0.6	0.141	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 (min)	LOS
A - A256 North	1245	311	59	3228	0.386	1246	1019	0.9	0.6	0.030	A
B - A526 South	811	203	465	2290	0.354	812	840	0.8	0.6	0.041	A
C - Manston Rd West	224	56	854	791	0.283	225	423	0.6	0.4	0.106	A

other - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.06	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1350	100.000
B - A526 South		ONE HOUR	✓	782	100.000
C - Manston Rd West		ONE HOUR	✓	294	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	105	786	459
B - A526 South	726	0	56
C - Manston Rd West	235	59	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	6	0	11
C - Manston Rd West	5	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.47	0.04	0.9	A	1239	1858
B - A526 South	0.42	0.05	0.7	A	718	1076
C - Manston Rd West	0.46	0.16	0.8	A	270	405

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1016	254	44	3159	0.322	1014	800	0.0	0.5	0.028	A
B - A526 South	589	147	424	2227	0.264	587	635	0.0	0.4	0.037	A
C - Manston Rd West	221	55	624	871	0.254	220	387	0.0	0.3	0.092	A

13:00 - 13:15

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 (min)	LOS
A - A256 North	1214	303	53	3148	0.386	1213	957	0.5	0.6	0.031	A
B - A526 South	703	176	507	2157	0.326	703	759	0.4	0.5	0.041	A
C - Manston Rd West	264	66	747	804	0.329	264	463	0.3	0.5	0.111	A

13:15 - 13:30

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 (min)	LOS
A - A256 North	1486	372	65	3134	0.474	1485	1172	0.6	0.9	0.036	A
B - A526 South	861	215	621	2061	0.418	860	929	0.5	0.7	0.050	A
C - Manston Rd West	324	81	914	711	0.455	322	567	0.5	0.8	0.154	A

13:30 - 13:45

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 (min)	LOS
A - A256 North	1486	372	65	3133	0.474	1486	1174	0.9	0.9	0.036	A
B - A526 South	861	215	621	2061	0.418	861	930	0.7	0.7	0.050	A

C - Manston Rd West	324	81	915	710	0.456	324	567	0.8	0.8	0.155	A
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13:45 - 14:00

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 (min)	LOS
A - A256 North	1214	303	53	3148	0.386	1215	960	0.9	0.6	0.031	A
B - A526 South	703	176	507	2156	0.326	704	761	0.7	0.5	0.041	A
C - Manston Rd West	264	66	748	803	0.329	266	463	0.8	0.5	0.112	A

14:00 - 14:15

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 (min)	LOS
A - A256 North	1016	254	45	3158	0.322	1017	804	0.6	0.5	0.028	A
B - A526 South	589	147	425	2226	0.265	589	637	0.5	0.4	0.037	A
C - Manston Rd West	221	55	626	870	0.254	222	388	0.5	0.3	0.093	A

other - 2039 Growthed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.31	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-19	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 Growthed Traffic	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 - A256 North		ONE HOUR	✓	1933	100.000
B - A526 South		ONE HOUR	✓	1416	100.000
C - Manston Rd West		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	181	1078	674
B - A526 South	1336	0	80
C - Manston Rd West	326	90	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	10
C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.68	0.06	2.1	A	1774	2661
B - A526 South	0.86	0.24	5.9	B	1299	1949
C - Manston Rd West	1.53	10.64	81.9	F	382	573

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 (min)	LOS
A - A256 North	1455	364	67	3136	0.464	1452	1380	0.0	0.9	0.036	A
B - A526 South	1066	267	642	2064	0.516	1062	876	0.0	1.1	0.060	A
C - Manston Rd West	313	78	1138	590	0.531	309	566	0.0	1.1	0.210	B

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 (min)	LOS
A - A256 North	1738	434	79	3121	0.557	1736	1647	0.9	1.2	0.043	A
B - A526 South	1273	318	768	1957	0.650	1270	1047	1.1	1.8	0.087	A
C - Manston Rd West	374	93	1361	468	0.799	365	677	1.1	3.4	0.541	D

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 (min)	LOS
A - A256 North	2128	532	66	3137	0.678	2125	1893	1.2	2.1	0.059	A
B - A526 South	1559	390	940	1812	0.861	1544	1251	1.8	5.6	0.213	B
C - Manston Rd West	458	115	1656	306	1.495	303	828	3.4	42.1	4.908	F

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 (min)	LOS
A - A256 North	2128	532	65	3138	0.678	2128	1903	2.1	2.1	0.059	A
B - A526 South	1559	390	941	1810	0.861	1558	1252	5.6	5.9	0.235	B

C - Manston Rd West	458	115	1669	299	1.532	299	830	42.1	81.9	10.645	F
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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 (min)	LOS
A - A256 North	1738	434	98	3098	0.561	1741	1733	2.1	1.3	0.044	A
B - A526 South	1273	318	770	1956	0.651	1289	1069	5.9	1.9	0.092	A
C - Manston Rd West	374	93	1379	458	0.817	452	680	81.9	62.3	8.993	F

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 (min)	LOS
A - A256 North	1455	364	120	3071	0.474	1457	1582	1.3	0.9	0.037	A
B - A526 South	1066	267	644	2062	0.517	1069	933	1.9	1.1	0.061	A
C - Manston Rd West	313	78	1145	586	0.535	557	568	62.3	1.4	3.235	F

other - 2039 Growthed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.35	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2084	100.000
B - A526 South		ONE HOUR	✓	1357	100.000
C - Manston Rd West		ONE HOUR	✓	374	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	135	1307	642
B - A526 South	1293	0	64
C - Manston Rd West	276	98	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.72	0.07	2.6	A	1912	2868
B - A526 South	0.77	0.13	3.2	A	1245	1868
C - Manston Rd West	1.05	2.72	19.5	F	343	515

Main Results for each time segment

16:30 - 16:45

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 (min)	LOS
A - A256 North	1569	392	73	3211	0.489	1565	1277	0.0	1.0	0.036	A
B - A526 South	1022	255	584	2187	0.467	1018	1055	0.0	0.9	0.051	A
C - Manston Rd West	282	70	1072	670	0.420	279	530	0.0	0.7	0.152	A

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 (min)	LOS
A - A256 North	1873	468	87	3194	0.587	1872	1527	1.0	1.4	0.045	A
B - A526 South	1220	305	698	2088	0.584	1218	1261	0.9	1.4	0.069	A
C - Manston Rd West	336	84	1282	553	0.608	333	634	0.7	1.5	0.269	C

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 (min)	LOS
A - A256 North	2295	574	97	3183	0.721	2290	1838	1.4	2.5	0.067	A
B - A526 South	1494	374	854	1953	0.765	1487	1533	1.4	3.1	0.127	A
C - Manston Rd West	412	103	1565	395	1.043	369	776	1.5	12.1	1.472	F

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 (min)	LOS
A - A256 North	2295	574	100	3178	0.722	2294	1854	2.5	2.6	0.068	A
B - A526 South	1494	374	855	1951	0.766	1494	1539	3.1	3.2	0.131	A

C - Manston Rd West	412	103	1572	391	1.053	382	777	12.1	19.5	2.716	F
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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 (min)	LOS
A - A256 North	1873	468	107	3171	0.591	1878	1591	2.6	1.5	0.047	A
B - A526 South	1220	305	700	2086	0.585	1227	1284	3.2	1.4	0.070	A
C - Manston Rd West	336	84	1291	548	0.614	407	636	19.5	1.7	0.637	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 (min)	LOS
A - A256 North	1569	392	75	3209	0.489	1571	1288	1.5	1.0	0.037	A
B - A526 South	1022	255	586	2185	0.468	1024	1060	1.4	0.9	0.052	A
C - Manston Rd West	282	70	1077	667	0.422	285	532	1.7	0.7	0.159	A

other - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	0	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1822	100.000
B - A526 South		ONE HOUR	✓	1045	100.000
C - Manston Rd West		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	609
B - A526 South	970	0	75
C - Manston Rd West	314	79	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	2
B - A526 South	6	0	11
C - Manston Rd West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.65	0.06	1.8	A	1672	2508
B - A526 South	0.61	0.08	1.5	A	959	1438
C - Manston Rd West	0.80	0.54	3.7	D	361	541

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1372	343	59	3122	0.439	1369	1068	0.0	0.8	0.034	A
B - A526 South	787	197	563	2110	0.373	784	865	0.0	0.6	0.045	A
C - Manston Rd West	296	74	833	754	0.392	293	514	0.0	0.6	0.130	A

13:00 - 13:15

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 (min)	LOS
A - A256 North	1638	409	71	3107	0.527	1637	1278	0.8	1.1	0.041	A
B - A526 South	939	235	673	2018	0.466	938	1034	0.6	0.9	0.056	A
C - Manston Rd West	353	88	997	664	0.532	351	614	0.6	1.1	0.191	B

13:15 - 13:30

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 (min)	LOS
A - A256 North	2006	502	85	3090	0.649	2003	1558	1.1	1.8	0.055	A
B - A526 South	1151	288	823	1891	0.608	1148	1265	0.9	1.5	0.080	A
C - Manston Rd West	433	108	1219	541	0.800	423	752	1.1	3.5	0.478	D

13:30 - 13:45

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 (min)	LOS
A - A256 North	2006	502	87	3088	0.650	2006	1567	1.8	1.8	0.055	A
B - A526 South	1151	288	825	1890	0.609	1151	1268	1.5	1.5	0.081	A

C - Manston Rd West	433	108	1222	539	0.802	432	753	3.5	3.7	0.545	D
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13:45 - 14:00

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 (min)	LOS
A - A256 North	1638	409	73	3104	0.528	1641	1291	1.8	1.1	0.041	A
B - A526 South	939	235	675	2016	0.466	942	1039	1.5	0.9	0.056	A
C - Manston Rd West	353	88	1001	662	0.534	363	616	3.7	1.2	0.208	B

14:00 - 14:15

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 (min)	LOS
A - A256 North	1372	343	60	3120	0.440	1373	1075	1.1	0.8	0.034	A
B - A526 South	787	197	564	2109	0.373	788	868	0.9	0.6	0.045	A
C - Manston Rd West	296	74	837	752	0.393	298	515	1.2	0.7	0.133	A

other - 2039 + Dev Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.69	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 + Dev Traffic	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 - A256 North		ONE HOUR	✓	1999	100.000
B - A526 South		ONE HOUR	✓	1581	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	181	1078	740
B - A526 South	1336	0	245
C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	3
C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.71	0.06	2.4	A	1834	2751
B - A526 South	0.99	0.87	25.0	F	1451	2176
C - Manston Rd West	1.58	11.73	91.3	F	410	615

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 (min)	LOS
A - A256 North	1505	376	83	3119	0.482	1501	1385	0.0	0.9	0.037	A
B - A526 South	1190	298	692	2034	0.585	1185	893	0.0	1.4	0.070	A
C - Manston Rd West	337	84	1137	592	0.569	331	739	0.0	1.3	0.226	B

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 (min)	LOS
A - A256 North	1797	449	97	3102	0.579	1795	1650	0.9	1.4	0.046	A
B - A526 South	1421	355	827	1918	0.741	1416	1066	1.4	2.8	0.118	A
C - Manston Rd West	402	100	1359	470	0.855	389	884	1.3	4.5	0.658	E

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 (min)	LOS
A - A256 North	2201	550	82	3121	0.705	2197	1861	1.4	2.4	0.065	A
B - A526 South	1741	435	1012	1760	0.989	1678	1266	2.8	18.3	0.529	D
C - Manston Rd West	492	123	1617	328	1.499	326	1073	4.5	46.1	5.111	F

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 (min)	LOS
A - A256 North	2201	550	78	3125	0.704	2201	1881	2.4	2.4	0.065	A
B - A526 South	1741	435	1014	1759	0.990	1714	1265	18.3	25.0	0.874	F

C - Manston Rd West	492	123	1648	312	1.580	311	1080	46.1	91.3	11.726	F
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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 (min)	LOS
A - A256 North	1797	449	106	3093	0.581	1801	1754	2.4	1.4	0.047	A
B - A526 South	1421	355	830	1916	0.742	1509	1077	25.0	3.0	0.180	B
C - Manston Rd West	402	100	1438	426	0.943	422	901	91.3	86.4	11.220	F

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 (min)	LOS
A - A256 North	1505	376	145	3046	0.494	1507	1582	1.4	1.0	0.039	A
B - A526 South	1190	298	694	2031	0.586	1196	958	3.0	1.4	0.072	A
C - Manston Rd West	337	84	1147	586	0.574	579	743	86.4	25.7	5.890	F

other - 2039 + Dev Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	2.65	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-25	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2092	100.000
B - A526 South		ONE HOUR	✓	1381	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	135	1307	650
B - A526 South	1293	0	88
C - Manston Rd West	342	280	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.75	0.08	2.9	A	1920	2879
B - A526 South	0.78	0.14	3.5	A	1267	1901
C - Manston Rd West	1.74	16.97	159.4	F	571	856

Main Results for each time segment

16:30 - 16:45

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 (min)	LOS
A - A256 North	1575	394	207	3056	0.515	1571	1324	0.0	1.1	0.040	A
B - A526 South	1040	260	589	2182	0.477	1036	1188	0.0	0.9	0.052	A
C - Manston Rd West	468	117	1071	673	0.696	460	554	0.0	2.2	0.271	C

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 (min)	LOS
A - A256 North	1881	470	234	3025	0.622	1878	1567	1.1	1.6	0.052	A
B - A526 South	1241	310	705	2082	0.596	1239	1407	0.9	1.5	0.071	A
C - Manston Rd West	559	140	1282	556	1.006	520	663	2.2	12.1	1.139	F

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 (min)	LOS
A - A256 North	2303	576	179	3089	0.746	2298	1783	1.6	2.9	0.075	A
B - A526 South	1521	380	862	1945	0.782	1513	1615	1.5	3.4	0.136	A
C - Manston Rd West	685	171	1565	397	1.723	397	810	12.1	84.1	7.577	F

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 (min)	LOS
A - A256 North	2303	576	177	3091	0.745	2303	1788	2.9	2.9	0.076	A
B - A526 South	1521	380	864	1943	0.782	1520	1616	3.4	3.5	0.141	A

C - Manston Rd West	685	171	1572	393	1.741	393	813	84.1	157.0	15.398	F
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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 (min)	LOS
A - A256 North	1881	470	247	3009	0.625	1886	1594	2.9	1.7	0.054	A
B - A526 South	1241	310	708	2079	0.597	1250	1425	3.5	1.5	0.073	A
C - Manston Rd West	559	140	1292	550	1.017	549	665	157.0	159.4	16.974	F

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 (min)	LOS
A - A256 North	1575	394	300	2948	0.534	1577	1443	1.7	1.2	0.044	A
B - A526 South	1040	260	592	2180	0.477	1042	1285	1.5	0.9	0.053	A
C - Manston Rd West	468	117	1077	670	0.699	666	556	159.4	110.1	12.168	F

other - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.24	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1894	100.000
B - A526 South		ONE HOUR	✓	1240	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	681
B - A526 South	970	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	1
B - A526 South	6	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.69	0.06	2.2	A	1738	2607
B - A526 South	0.74	0.12	2.8	A	1138	1707
C - Manston Rd West	0.95	1.23	10.0	F	429	643

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1426	356	98	3093	0.461	1422	1083	0.0	0.9	0.036	A
B - A526 South	934	233	617	2089	0.447	930	904	0.0	0.8	0.052	A
C - Manston Rd West	352	88	833	760	0.463	348	714	0.0	0.8	0.145	A

13:00 - 13:15

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 (min)	LOS
A - A256 North	1703	426	117	3070	0.555	1701	1296	0.9	1.2	0.044	A
B - A526 South	1115	279	737	1987	0.561	1113	1081	0.8	1.3	0.068	A
C - Manston Rd West	420	105	996	669	0.627	417	854	0.8	1.6	0.235	B

13:15 - 13:30

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 (min)	LOS
A - A256 North	2085	521	137	3046	0.685	2082	1569	1.2	2.1	0.062	A
B - A526 South	1365	341	902	1848	0.739	1359	1317	1.3	2.7	0.121	A
C - Manston Rd West	514	129	1217	546	0.942	489	1044	1.6	7.8	0.836	F

13:30 - 13:45

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 (min)	LOS
A - A256 North	2085	521	142	3040	0.686	2085	1586	2.1	2.2	0.063	A
B - A526 South	1365	341	904	1847	0.739	1365	1323	2.7	2.8	0.124	A

C - Manston Rd West	514	129	1222	543	0.946	506	1047	7.8	10.0	1.229	F
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13:45 - 14:00

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 (min)	LOS
A - A256 North	1703	426	127	3058	0.557	1706	1328	2.2	1.3	0.045	A
B - A526 South	1115	279	740	1985	0.561	1121	1094	2.8	1.3	0.070	A
C - Manston Rd West	420	105	1003	665	0.631	453	858	10.0	1.8	0.322	C

14:00 - 14:15

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 (min)	LOS
A - A256 North	1426	356	100	3090	0.461	1428	1093	1.3	0.9	0.036	A
B - A526 South	934	233	619	2087	0.447	935	908	1.3	0.8	0.052	A
C - Manston Rd West	352	88	837	758	0.464	355	717	1.8	0.9	0.150	A

other - 2039 B+Dev Net Change, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.15	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 B+Dev Net Change	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 - A256 North		ONE HOUR	✓	1876	100.000
B - A526 South		ONE HOUR	✓	1499	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	181	955	740
B - A526 South	1254	0	245
C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	2
B - A526 South	4	0	3
C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.66	0.06	1.9	A	1721	2582
B - A526 South	0.93	0.43	11.2	D	1376	2063
C - Manston Rd West	1.37	8.02	68.5	F	410	615

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 (min)	LOS
A - A256 North	1412	353	83	3138	0.450	1409	1325	0.0	0.8	0.035	A
B - A526 South	1129	282	692	2050	0.550	1124	801	0.0	1.2	0.064	A
C - Manston Rd West	337	84	1076	630	0.534	332	739	0.0	1.1	0.198	B

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 (min)	LOS
A - A256 North	1686	422	99	3120	0.541	1685	1582	0.8	1.2	0.042	A
B - A526 South	1348	337	827	1934	0.697	1343	957	1.2	2.3	0.101	A
C - Manston Rd West	402	100	1286	516	0.779	394	884	1.1	3.1	0.465	D

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 (min)	LOS
A - A256 North	2066	516	91	3128	0.660	2063	1827	1.2	1.9	0.056	A
B - A526 South	1650	413	1013	1774	0.930	1620	1141	2.3	9.9	0.338	C
C - Manston Rd West	492	123	1554	370	1.329	365	1078	3.1	35.0	3.512	F

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 (min)	LOS
A - A256 North	2066	516	90	3130	0.660	2065	1844	1.9	1.9	0.056	A
B - A526 South	1650	413	1014	1773	0.931	1645	1141	9.9	11.2	0.435	D

C - Manston Rd West	492	123	1576	358	1.373	358	1084	35.0	68.5	8.025	F
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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 (min)	LOS
A - A256 North	1686	422	123	3091	0.546	1689	1687	1.9	1.2	0.043	A
B - A526 South	1348	337	829	1932	0.698	1383	983	11.2	2.4	0.116	A
C - Manston Rd West	402	100	1320	497	0.808	490	892	68.5	46.4	6.801	F

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 (min)	LOS
A - A256 North	1412	353	130	3083	0.458	1414	1472	1.2	0.8	0.036	A
B - A526 South	1129	282	694	2048	0.551	1133	849	2.4	1.2	0.066	A
C - Manston Rd West	337	84	1084	626	0.538	517	743	46.4	1.2	1.545	F

other - 2039 B+Dev Net Change, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.68	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1980	100.000
B - A526 South		ONE HOUR	✓	1253	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	135	1195	650
B - A526 South	1165	0	88
C - Manston Rd West	342	280	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.71	0.07	2.5	A	1817	2725
B - A526 South	0.71	0.11	2.4	A	1150	1725
C - Manston Rd West	1.45	10.02	112.7	F	571	856

Main Results for each time segment

16:30 - 16:45

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 (min)	LOS
A - A256 North	1491	373	208	3056	0.488	1487	1229	0.0	0.9	0.038	A
B - A526 South	943	236	589	2182	0.432	940	1105	0.0	0.8	0.048	A
C - Manston Rd West	468	117	976	727	0.644	461	554	0.0	1.7	0.221	B

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 (min)	LOS
A - A256 North	1780	445	243	3014	0.591	1778	1464	0.9	1.4	0.048	A
B - A526 South	1126	282	705	2082	0.541	1125	1317	0.8	1.2	0.063	A
C - Manston Rd West	559	140	1167	620	0.902	541	663	1.7	6.3	0.649	E

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 (min)	LOS
A - A256 North	2180	545	213	3050	0.715	2176	1686	1.4	2.5	0.068	A
B - A526 South	1380	345	863	1945	0.709	1375	1526	1.2	2.4	0.104	A
C - Manston Rd West	685	171	1427	475	1.443	472	811	6.3	59.5	4.463	F

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 (min)	LOS
A - A256 North	2180	545	212	3050	0.715	2180	1691	2.5	2.5	0.069	A
B - A526 South	1380	345	864	1943	0.710	1379	1528	2.4	2.4	0.106	A

C - Manston Rd West	685	171	1431	472	1.451	472	813	59.5	112.7	10.021	F
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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 (min)	LOS
A - A256 North	1780	445	275	2977	0.598	1784	1509	2.5	1.5	0.050	A
B - A526 South	1126	282	707	2080	0.542	1131	1352	2.4	1.2	0.064	A
C - Manston Rd West	559	140	1173	616	0.907	611	665	112.7	99.8	9.929	F

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 (min)	LOS
A - A256 North	1491	373	323	2921	0.510	1492	1375	1.5	1.0	0.042	A
B - A526 South	943	236	592	2180	0.433	945	1224	1.2	0.8	0.049	A
C - Manston Rd West	468	117	980	724	0.647	717	556	99.8	37.6	5.809	F

other - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.19	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
C - Manston Rd West	Percentage		95.00

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	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1791	100.000
B - A526 South		ONE HOUR	✓	1203	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	970	681
B - A526 South	933	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	1
B - A526 South	5	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.64	0.05	1.8	A	1643	2465
B - A526 South	0.71	0.11	2.4	A	1104	1656
C - Manston Rd West	0.90	0.87	7.0	F	429	643

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1348	337	98	3129	0.431	1345	1056	0.0	0.8	0.034	A
B - A526 South	906	226	617	2105	0.430	903	826	0.0	0.8	0.050	A
C - Manston Rd West	352	88	805	779	0.451	348	714	0.0	0.8	0.138	A

13:00 - 13:15

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 (min)	LOS
A - A256 North	1610	403	117	3106	0.518	1609	1263	0.8	1.1	0.040	A
B - A526 South	1081	270	737	2002	0.540	1080	988	0.8	1.2	0.065	A
C - Manston Rd West	420	105	963	692	0.607	417	854	0.8	1.5	0.216	B

13:15 - 13:30

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 (min)	LOS
A - A256 North	1972	493	139	3080	0.640	1969	1534	1.1	1.8	0.054	A
B - A526 South	1325	331	903	1862	0.711	1320	1206	1.2	2.4	0.110	A
C - Manston Rd West	514	129	1177	574	0.896	496	1045	1.5	5.9	0.663	E

13:30 - 13:45

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 (min)	LOS
A - A256 North	1972	493	143	3075	0.641	1972	1548	1.8	1.8	0.054	A
B - A526 South	1325	331	904	1861	0.712	1324	1211	2.4	2.4	0.112	A

C - Manston Rd West	514	129	1181	572	0.899	510	1047	5.9	7.0	0.875	F
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13:45 - 14:00

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 (min)	LOS
A - A256 North	1610	403	124	3098	0.520	1613	1286	1.8	1.1	0.040	A
B - A526 South	1081	270	739	2001	0.541	1086	997	2.4	1.2	0.066	A
C - Manston Rd West	420	105	969	689	0.609	441	857	7.0	1.6	0.261	C

14:00 - 14:15

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 (min)	LOS
A - A256 North	1348	337	99	3127	0.431	1350	1064	1.1	0.8	0.034	A
B - A526 South	906	226	619	2103	0.431	907	830	1.2	0.8	0.050	A
C - Manston Rd West	352	88	809	777	0.452	355	717	1.6	0.8	0.143	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Junction 20B_ Validated_R2_PM.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 20A.1, 20A.2, 20A.3 and 20B

Report generation date: 29/01/2018 13:18:26

- » Lane Simulation module - 2017 Baseline Traffic, AM
- » Lane Simulation module - 2017 Baseline Traffic, PM
- » Lane Simulation module - 2017 Baseline Traffic, Airport Peak
- » Lane Simulation module - 2039 Growthed Traffic, AM
- » Lane Simulation module - 2039 Growthed Traffic, PM
- » Lane Simulation module - 2039 Growthed Traffic, Airport Peak
- » Lane Simulation module - 2039 + Dev Traffic, AM
- » Lane Simulation module - 2039 + Dev Traffic, PM
- » Lane Simulation module - 2039 + Dev Traffic, Airport Peak
- » Lane Simulation module - 2039 B+Dev Net Change, AM
- » Lane Simulation module - 2039 B+Dev Net Change, PM
- » Lane Simulation module - 2039 B+Dev Net Change, Airport Peak
- » other - 2017 Baseline Traffic, AM
- » other - 2017 Baseline Traffic, PM
- » other - 2017 Baseline Traffic, Airport Peak
- » other - 2039 Growthed Traffic, AM
- » other - 2039 Growthed Traffic, PM
- » other - 2039 Growthed Traffic, Airport Peak
- » other - 2039 + Dev Traffic, AM
- » other - 2039 + Dev Traffic, PM
- » other - 2039 + Dev Traffic, Airport Peak
- » other - 2039 B+Dev Net Change, AM
- » other - 2039 B+Dev Net Change, PM
- » other - 2039 B+Dev Net Change, Airport Peak

Summary of junction performance

	AM					PM					Airport Peak				
	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (min)	RFC	LOS	Network Residual Capacity
Lane Simulation module [Lane Simulation] - 2017 Baseline Traffic															
A - A256 North	3.0	0.10		A	%	4.1	0.13		A	%	2.7	0.10		A	%
B - A526 South	36.0	1.50		F		10.1	0.49		D		1.9	0.13		A	
C - Manston Rd West	15.0	2.23		F	[]	3.8	0.67		E	[]	1.0	0.16		A	[]
Lane Simulation module [Lane Simulation] - 2039 Growthed Traffic															
A - A256 North	14.1	0.40		C	%	26.3	0.61		E	%	11.6	0.36		C	%
B - A526 South	131.1	5.21		F		136.1	5.98		F		7.4	0.39		C	
C - Manston Rd West	30.1	4.12		F	[]	26.9	3.92		F	[]	5.2	0.66		E	[]
Lane Simulation module [Lane Simulation] - 2039 + Dev Traffic															
A - A256 North	25.2	0.61		E	%	38.0	0.86		F	%	16.1	0.44		D	%
B - A526 South	329.6	14.09		F		159.7	7.46		F		69.4	2.66		F	
C - Manston Rd West	12.6	1.50		F	[]	244.0	25.35		F	[]	7.2	0.84		F	[]
Lane Simulation module [Lane Simulation] - 2039 B+Dev Net Change															
A - A256 North	9.3	0.28		C	%	15.9	0.40		C	%	7.6	0.22		B	%
B - A526 South	246.0	10.88		F		87.5	3.51		F		55.2	2.18		F	
C - Manston Rd West	10.3	1.22		F	[]	207.1	22.79		F	[]	6.3	0.74		E	[]
other - 2017 Baseline Traffic															
A - A256 North	1.2	0.04	0.54	A	-12%	1.3	0.04	0.57	A	-1%	0.9	0.04	0.47	A	14%
B - A526 South	2.6	0.13	0.73	A	[C - Manston	1.8	0.09	0.65	A	[C - Manston	0.9	0.06	0.48	A	[C - Manston

C - Manston Rd West	15.9	2.58	1.03	F	Rd West]	3.2	0.62	0.78	E	Rd West]	1.6	0.30	0.62	C	Rd West]
other - 2039 Growthed Traffic															
A - A256 North	2.1	0.06	0.68	A	-30 %	2.5	0.07	0.72	A	-21 %	1.8	0.05	0.65	A	-15 %
B - A526 South	23.9	0.93	0.99	F	[C - Manston Rd West]	6.8	0.29	0.88	C	[C - Manston Rd West]	2.3	0.12	0.70	A	[C - Manston Rd West]
C - Manston Rd West	140.5	25.52	1.99	F	[C - Manston Rd West]	64.7	9.37	1.43	F	[C - Manston Rd West]	25.6	3.37	1.09	F	[C - Manston Rd West]
other - 2039 + Dev Traffic															
A - A256 North	2.4	0.06	0.70	A	-32 %	2.7	0.07	0.73	A	-37 %	2.1	0.06	0.68	A	-21 %
B - A526 South	114.3	3.50	1.14	F	[C - Manston Rd West]	8.1	0.34	0.90	C	[C - Manston Rd West]	5.4	0.24	0.85	B	[C - Manston Rd West]
C - Manston Rd West	151.9	26.65	1.68	F	[C - Manston Rd West]	280.7	39.78	2.36	F	[C - Manston Rd West]	61.8	6.98	1.28	F	[C - Manston Rd West]
other - 2039 B+Dev Net Change															
A - A256 North	1.9	0.06	0.66	A	-30 %	2.3	0.06	0.70	A	-34 %	1.7	0.05	0.64	A	-20 %
B - A526 South	66.3	2.15	1.07	F	[C - Manston Rd West]	4.3	0.19	0.82	B	[C - Manston Rd West]	4.3	0.20	0.82	B	[C - Manston Rd West]
C - Manston Rd West	133.5	21.23	1.64	F	[C - Manston Rd West]	226.6	27.41	1.97	F	[C - Manston Rd West]	51.8	5.74	1.22	F	[C - Manston Rd West]

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

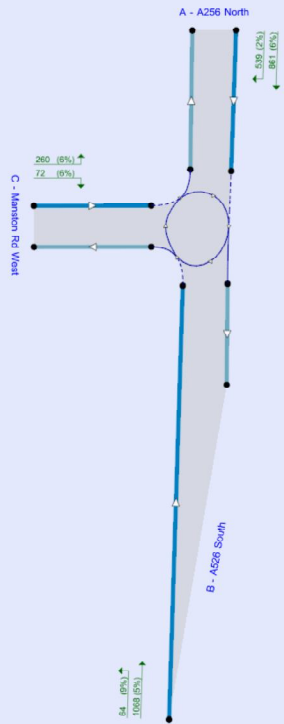
File summary

File Description

Title	Junction 20B
Location	A256 - Manston Rd West
Site number	20B
Date	04/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	GLOBAL\jessica.elliott
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	mph	Veh	Veh	perHour	min	-Min	perMin



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75			✓	Delay	0.85	0.60	20.00

Lane Simulation options

Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Use crossings quick response	Last run random seed	Last run number of trials	Last run time taken (s)
1.00	100000	100000	-1	3	1	✓	617731030	280	55.92

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
D3	2017 Baseline Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D6	2039 Growthed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D9	2039 + Dev Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	15	✓
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓
D12	2039 B+Dev Net Change	AM	ONE HOUR	07:30	09:00	15	✓
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	15	✓
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	15	✓

Lane Simulation module - 2017 Baseline Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.87	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D3	2017 Baseline Traffic	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 - A256 North		ONE HOUR	✓	1545	100.000
B - A526 South		ONE HOUR	✓	1132	100.000
C - Manston Rd West		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	145	861	539
B - A526 South	1068	0	64
C - Manston Rd West	260	72	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	9
C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.10	3.0	A	1414	2122
B - A526 South	1.50	36.0	F	1045	1568
C - Manston Rd West	2.23	15.0	F	305	458

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1160	290	53	1161	1113	0.0	1.2	0.063	A
B - A526 South	855	214	519	853	695	0.0	2.3	0.142	A
C - Manston Rd West	251	63	914	251	458	0.0	1.0	0.197	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1390	348	66	1394	1335	1.2	1.5	0.075	A
B - A526 South	1026	257	617	1025	842	2.3	4.5	0.243	B
C - Manston Rd West	300	75	1100	300	542	1.0	2.3	0.403	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1702	425	75	1703	1552	1.5	2.9	0.101	A
B - A526 South	1256	314	752	1191	1025	4.5	22.8	0.763	E
C - Manston Rd West	369	92	1284	342	659	2.3	9.6	1.172	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1694	423	76	1692	1574	2.9	2.9	0.099	A
B - A526 South	1260	315	745	1204	1022	22.8	35.9	1.497	F
C - Manston Rd West	367	92	1298	351	651	9.6	15.0	2.231	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1388	347	70	1390	1382	2.9	1.7	0.079	A
B - A526 South	1016	254	618	1068	842	35.9	9.0	0.951	F
C - Manston Rd West	295	74	1134	318	552	15.0	6.3	1.717	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1154	288	57	1152	1123	1.7	1.3	0.063	A
B - A526 South	857	214	513	860	696	9.0	2.1	0.216	B

C - Manston Rd West	252	63	925	255	449	6.3	1.0	0.409	C
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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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	642	1547	0.415	642	0.0	0.7	0.066	A
			2	A, C	518	1612	0.321	519	0.0	0.4	0.053	A
	Exit	1	1	(A, B, C)	1160			1160	0.0	0.1	0.002	A
			1		1113			1113	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	648	946	0.686	647	0.0	2.0	0.162	A
			2	(A), B	206	944	0.218	206	0.0	0.3	0.073	A
	Exit	1	1	(A, B, C)	855			854	0.0	0.0	0.000	A
			1		695			695	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	251	524	0.479	251	0.0	1.0	0.197	B
	Exit	1	1		458			458	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	775	1539	0.504	776	0.7	0.9	0.076	A
			2	A, C	617	1607	0.384	617	0.4	0.6	0.060	A
	Exit	1	1	(A, B, C)	1390			1392	0.1	0.1	0.006	A
			1		1335			1335	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	754	909	0.830	754	2.0	3.9	0.289	C
			2	(A), B	271	907	0.299	271	0.3	0.4	0.089	A
	Exit	1	1	(A, B, C)	1026			1025	0.0	0.2	0.006	A
			1		842			842	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	300	448	0.670	300	1.0	2.3	0.403	C
	Exit	1	1		542			542	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	951	1536	0.619	951	0.9	1.5	0.092	A
			2	A, C	751	1597	0.470	752	0.6	0.9	0.069	A
	Exit	1	1	(A, B, C)	1702			1702	0.1	0.6	0.019	A
			1		1552			1552	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	846	858	0.987	838	3.9	10.9	0.648	E
			2	(A), B	354	862	0.411	353	0.4	1.0	0.128	A
	Exit	1	1	(A, B, C)	1256			1200	0.2	10.9	0.257	C
			1		1025			1025	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	369	376	0.979	342	2.3	9.6	1.172	F
	Exit	1	1		659			659	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	947	1535	0.617	947	1.5	1.4	0.089	A
			2	A, C	746	1596	0.467	745	0.9	0.8	0.068	A
	Exit	1	1	(A, B, C)	1694			1692	0.6	0.7	0.019	A
			1		1574			1574	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	845	860	0.983	843	10.9	12.0	0.828	E
			2	(A), B	359	859	0.418	361	1.0	0.8	0.154	A
	Exit	1	1	(A, B, C)	1260			1204	10.9	23.1	0.868	F
			1		1022			1022	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	367	369	0.992	351	9.6	15.0	2.231	F
	Exit	1	1		651			651	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	770	1538	0.501	772	1.4	1.0	0.079	A

A - A256 North	Entry	1	2	A, C	618	1598	0.386	618	0.8	0.6	0.062	A
		2	1	(A, B, C)	1388			1388	0.7	0.1	0.008	A
	Exit	1	1		1382			1382	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	769	904	0.850	780	12.0	5.5	0.592	E
			2	(A), B	285	910	0.314	288	0.8	0.4	0.127	A
		2	1	(A, B, C)	1016			1055	23.1	3.1	0.511	D
	Exit	1	1		842			842	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	295	436	0.679	318	15.0	6.3	1.717	F
	Exit	1	1		552			552	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	640	1546	0.414	639	1.0	0.8	0.066	A
			2	A, C	513	1606	0.319	513	0.6	0.4	0.055	A
		2	1	(A, B, C)	1154			1153	0.1	0.1	0.002	A
	Exit	1	1		1123			1123	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	648	945	0.686	651	5.5	1.8	0.226	B
			2	(A), B	209	949	0.220	209	0.4	0.3	0.082	A
		2	1	(A, B, C)	857			857	3.1	0.0	0.035	A
	Exit	1	1		696			696	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	252	519	0.485	255	6.3	1.0	0.409	C
	Exit	1	1		449			449	0.0	0.0	0.000	A

Lane Simulation module - 2017 Baseline Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.31	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D4	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1654	100.000
B - A526 South		ONE HOUR	✓	1077	100.000
C - Manston Rd West		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	107	1037	510
B - A526 South	1026	0	51
C - Manston Rd West	219	78	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.13	4.1	A	1513	2270
B - A526 South	0.49	10.1	D	990	1484
C - Manston Rd West	0.67	3.8	E	272	409

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1246	312	57	1248	1023	0.0	1.3	0.065	A
B - A526 South	820	205	461	819	845	0.0	1.7	0.119	A
C - Manston Rd West	223	56	859	222	422	0.0	0.7	0.148	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1484	371	70	1486	1220	1.3	1.8	0.081	A
B - A526 South	971	243	552	974	1004	1.7	2.7	0.177	B
C - Manston Rd West	267	67	1024	266	503	0.7	1.1	0.233	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1819	455	86	1819	1483	1.8	4.0	0.125	A
B - A526 South	1192	298	674	1184	1231	2.7	9.0	0.379	C
C - Manston Rd West	332	83	1244	326	614	1.1	3.5	0.514	D

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1816	454	87	1812	1480	4.0	3.9	0.126	A
B - A526 South	1183	296	679	1184	1220	9.0	10.1	0.491	D
C - Manston Rd West	326	82	1244	323	619	3.5	3.8	0.672	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1480	370	69	1477	1212	3.9	2.1	0.083	A
B - A526 South	967	242	548	967	998	10.1	2.9	0.237	B
C - Manston Rd West	267	67	1014	267	501	3.8	1.2	0.340	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1234	309	58	1237	1009	2.1	1.3	0.066	A
B - A526 South	804	201	461	803	834	2.9	1.7	0.130	A

C - Manston Rd West	221	55	847	220	418	1.2	0.7	0.185	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	785	1609	0.488	787	0.0	0.9	0.069	A
			2	A, C	461	1624	0.284	461	0.0	0.4	0.052	A
		2	1	(A, B, C)	1246			1246	0.0	0.1	0.002	A
	Exit	1	1		1023			1023	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	627	995	0.630	626	0.0	1.5	0.135	A
			2	(A), B	193	996	0.194	193	0.0	0.2	0.067	A
		2	1	(A, B, C)	820			820	0.0	0.0	0.000	A
	Exit	1	1		845			845	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	223	581	0.383	222	0.0	0.7	0.148	A
	Exit	1	1		422			422	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	932	1600	0.582	934	0.9	1.2	0.083	A
			2	A, C	552	1618	0.341	552	0.4	0.5	0.056	A
		2	1	(A, B, C)	1484			1484	0.1	0.2	0.008	A
	Exit	1	1		1220			1220	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	723	963	0.751	727	1.5	2.3	0.208	B
			2	(A), B	248	965	0.257	248	0.2	0.3	0.080	A
		2	1	(A, B, C)	971			971	0.0	0.0	0.002	A
	Exit	1	1		1004			1004	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	267	513	0.521	266	0.7	1.1	0.233	B
	Exit	1	1		503			503	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1145	1593	0.719	1145	1.2	2.1	0.106	A
			2	A, C	674	1606	0.420	674	0.5	0.7	0.064	A
		2	1	(A, B, C)	1819			1820	0.2	1.2	0.035	A
	Exit	1	1		1483			1483	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	844	917	0.920	844	2.3	6.5	0.418	D
			2	(A), B	339	917	0.369	340	0.3	0.5	0.103	A
		2	1	(A, B, C)	1192			1183	0.0	2.0	0.046	A
	Exit	1	1		1231			1231	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	332	423	0.784	326	1.1	3.5	0.514	D
	Exit	1	1		614			614	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1134	1592	0.713	1133	2.1	2.0	0.105	A
			2	A, C	679	1608	0.422	679	0.7	0.7	0.064	A
		2	1	(A, B, C)	1816			1813	1.2	1.2	0.036	A
	Exit	1	1		1480			1480	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	844	915	0.923	844	6.5	7.1	0.487	D
			2	(A), B	339	917	0.369	339	0.5	0.6	0.108	A
		2	1	(A, B, C)	1183			1183	2.0	2.4	0.111	A
	Exit	1	1		1220			1220	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	326	423	0.771	323	3.5	3.8	0.672	E
	Exit	1	1		619			619	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	931	1603	0.581	929	2.0	1.3	0.085	A

A - A256 North	Entry	1	2	A, C	549	1618	0.339	548	0.7	0.6	0.056	A
		2	1	(A, B, C)	1480			1480	1.2	0.2	0.009	A
	Exit	1	1		1212			1212	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	726	966	0.752	727	7.1	2.5	0.267	C
			2	(A), B	241	965	0.250	240	0.6	0.4	0.084	A
		2	1	(A, B, C)	967			967	2.4	0.0	0.022	A
	Exit	1	1		998			998	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	267	517	0.515	267	3.8	1.2	0.340	C
	Exit	1	1		501			501	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	775	1608	0.482	776	1.3	0.9	0.071	A
			2	A, C	460	1624	0.283	461	0.6	0.4	0.052	A
		2	1	(A, B, C)	1234			1235	0.2	0.0	0.003	A
	Exit	1	1		1009			1009	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	612	998	0.614	612	2.5	1.4	0.148	A
			2	(A), B	192	998	0.192	191	0.4	0.2	0.071	A
		2	1	(A, B, C)	804			804	0.0	0.0	0.000	A
	Exit	1	1		834			834	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	221	586	0.377	220	1.2	0.7	0.185	B
	Exit	1	1		418			418	0.0	0.0	0.000	A

Lane Simulation module - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D5	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1350	100.000
B - A526 South		ONE HOUR	✓	782	100.000
C - Manston Rd West		ONE HOUR	✓	294	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	105	786	459
B - A526 South	726	0	56
C - Manston Rd West	235	59	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	6	0	11
C - Manston Rd West	5	8	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.10	2.7	A	1242	1863
B - A526 South	0.13	1.9	A	720	1081
C - Manston Rd West	0.16	1.0	A	268	402

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1022	255	44	1021	804	0.0	1.0	0.065	A
B - A526 South	587	147	429	585	636	0.0	0.8	0.080	A
C - Manston Rd West	225	56	624	225	391	0.0	0.3	0.087	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1198	299	54	1198	949	1.0	1.5	0.074	A
B - A526 South	698	174	501	695	751	0.8	1.4	0.097	A
C - Manston Rd West	261	65	741	262	455	0.3	0.5	0.110	A

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1489	372	69	1486	1178	1.5	2.6	0.096	A
B - A526 South	870	217	626	873	929	1.4	1.9	0.123	A
C - Manston Rd West	322	81	924	323	576	0.5	0.9	0.154	A

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1502	375	65	1500	1183	2.6	2.7	0.098	A
B - A526 South	870	217	622	869	942	1.9	1.8	0.130	A
C - Manston Rd West	324	81	924	324	568	0.9	1.0	0.164	A

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1230	307	52	1233	965	2.7	1.2	0.074	A
B - A526 South	711	178	516	709	769	1.8	1.1	0.102	A
C - Manston Rd West	265	66	751	266	474	1.0	0.5	0.119	A

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1014	253	44	1013	793	1.2	1.2	0.065	A
B - A526 South	588	147	424	586	633	1.1	0.9	0.081	A

C - Manston Rd West	213	53	624	213	386	0.5	0.3	0.098	A
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	593	1469	0.404	592	0.0	0.7	0.068	A
			2	A, C	429	1517	0.283	429	0.0	0.4	0.055	A
		2	1	(A, B, C)	1022			1022	0.0	0.0	0.002	A
	Exit	1	1		804			804	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	467	1101	0.423	466	0.0	0.7	0.086	A
			2	(A), B	120	1114	0.108	119	0.0	0.1	0.057	A
		2	1	(A, B, C)	587			587	0.0	0.0	0.000	A
	Exit	1	1		636			636	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	225	870	0.258	225	0.0	0.3	0.087	A
	Exit	1	1		391			391	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	697	1457	0.479	697	0.7	1.0	0.078	A
			2	A, C	500	1513	0.330	501	0.4	0.4	0.060	A
		2	1	(A, B, C)	1198			1198	0.0	0.1	0.004	A
	Exit	1	1		949			949	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	548	1080	0.508	545	0.7	1.2	0.107	A
			2	(A), B	150	1077	0.139	149	0.1	0.2	0.062	A
		2	1	(A, B, C)	698			698	0.0	0.0	0.000	A
	Exit	1	1		751			751	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	261	807	0.324	262	0.3	0.5	0.110	A
	Exit	1	1		455			455	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	861	1452	0.594	860	1.0	1.4	0.092	A
			2	A, C	627	1505	0.417	626	0.4	0.8	0.069	A
		2	1	(A, B, C)	1489			1489	0.1	0.4	0.013	A
	Exit	1	1		1178			1178	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	668	1031	0.648	670	1.2	1.6	0.140	A
			2	(A), B	201	1029	0.195	203	0.2	0.2	0.068	A
		2	1	(A, B, C)	870			870	0.0	0.0	0.000	A
	Exit	1	1		929			929	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	322	710	0.453	323	0.5	0.9	0.154	A
	Exit	1	1		576			576	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	878	1453	0.604	878	1.4	1.4	0.093	A
			2	A, C	622	1509	0.412	622	0.8	0.7	0.068	A
		2	1	(A, B, C)	1502			1499	0.4	0.5	0.015	A
	Exit	1	1		1183			1183	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	669	1032	0.648	668	1.6	1.6	0.148	A
			2	(A), B	201	1037	0.194	201	0.2	0.2	0.067	A
		2	1	(A, B, C)	870			870	0.0	0.0	0.000	A
	Exit	1	1		942			942	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	324	709	0.457	324	0.9	1.0	0.164	A
	Exit	1	1		568			568	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	718	1461	0.491	717	1.4	0.9	0.078	A

A - A256 North	Entry	1	2	A, C	513	1513	0.339	516	0.7	0.3	0.059	A
		2	1	(A, B, C)	1230			1230	0.5	0.0	0.004	A
	Exit	1	1		965			965	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	557	1075	0.518	555	1.6	1.0	0.113	A
			2	(A), B	154	1080	0.142	154	0.2	0.1	0.061	A
		2	1	(A, B, C)	711			711	0.0	0.0	0.000	A
	Exit	1	1		769			769	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	265	801	0.331	266	1.0	0.5	0.119	A
	Exit	1	1		474			474	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	590	1461	0.404	589	0.9	0.8	0.069	A
			2	A, C	424	1522	0.278	424	0.3	0.4	0.055	A
		2	1	(A, B, C)	1014			1014	0.0	0.0	0.002	A
	Exit	1	1		793			793	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	470	1116	0.421	469	1.0	0.7	0.087	A
			2	(A), B	118	1113	0.106	117	0.1	0.1	0.057	A
		2	1	(A, B, C)	588			588	0.0	0.0	0.000	A
	Exit	1	1		633			633	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	213	871	0.244	213	0.5	0.3	0.098	A
	Exit	1	1		386			386	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	2.63	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
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A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D6	2039 Growthed Traffic	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 - A256 North		ONE HOUR	✓	1933	100.000
B - A526 South		ONE HOUR	✓	1416	100.000
C - Manston Rd West		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (Veh/hr)

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		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	181	1078	674
	B - A526 South	1336	0	80
	C - Manston Rd West	326	90	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	2	6	2
	B - A526 South	5	0	10
	C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.40	14.1	C	1775	2662
B - A526 South	5.21	131.1	F	1302	1953
C - Manston Rd West	4.12	30.1	F	382	573

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1454	364	66	1456	1386	0.0	2.2	0.088	A
B - A526 South	1066	266	646	1064	875	0.0	3.2	0.155	A
C - Manston Rd West	310	78	1142	309	568	0.0	1.3	0.195	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1735	434	78	1736	1640	2.2	3.8	0.129	A
B - A526 South	1275	319	764	1261	1050	3.2	10.4	0.379	C
C - Manston Rd West	375	94	1350	368	676	1.3	4.3	0.542	D

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2131	533	84	2123	1744	3.8	14.1	0.340	C
B - A526 South	1559	390	931	1304	1276	10.4	66.6	1.736	F
C - Manston Rd West	458	115	1432	396	803	4.3	19.9	2.019	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2129	532	95	2130	1751	14.1	13.9	0.396	C
B - A526 South	1566	391	943	1292	1282	66.6	130.9	4.551	F
C - Manston Rd West	458	115	1414	431	820	19.9	30.0	3.786	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1744	436	84	1750	1777	13.9	3.8	0.175	B
B - A526 South	1273	318	771	1392	1062	130.9	105.3	5.214	F
C - Manston Rd West	381	95	1475	386	689	30.0	25.3	4.123	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1457	364	81	1454	1659	3.8	2.4	0.093	A
B - A526 South	1069	267	642	1313	894	105.3	29.7	2.617	F
C - Manston Rd West	312	78	1375	365	580	25.3	12.5	2.585	F

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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	810	1453	0.557	809	0.0	1.3	0.086	A
			2	A, C	646	1506	0.429	646	0.0	0.8	0.069	A
		2	1	(A, B, C)	1454			1456	0.0	0.2	0.010	A
	Exit	1	1		1386			1386	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	799	1030	0.776	797	0.0	2.8	0.182	B
			2	(A), B	266	1033	0.257	267	0.0	0.3	0.070	A
		2	1	(A, B, C)	1066			1065	0.0	0.1	0.002	A
	Exit	1	1		875			875	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	310	586	0.530	309	0.0	1.3	0.195	B
	Exit	1	1		568			568	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	972	1445	0.673	972	1.3	1.7	0.106	A
			2	A, C	763	1502	0.508	764	0.8	1.0	0.078	A
		2	1	(A, B, C)	1735			1735	0.2	1.1	0.035	A
	Exit	1	1		1640			1640	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	903	982	0.920	898	2.8	7.3	0.406	C
			2	(A), B	363	984	0.369	363	0.3	0.7	0.100	A
		2	1	(A, B, C)	1275			1265	0.1	2.4	0.057	A
	Exit	1	1		1050			1050	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	375	473	0.790	368	1.3	4.3	0.542	D
	Exit	1	1		676			676	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1193	1441	0.828	1192	1.7	2.7	0.132	A
			2	A, C	928	1496	0.620	931	1.0	1.4	0.095	A
		2	1	(A, B, C)	2131			2121	1.1	9.9	0.224	B
	Exit	1	1		1744			1744	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	909	907	1.002	905	7.3	14.1	0.813	E
			2	(A), B	397	910	0.436	399	0.7	1.0	0.154	A
		2	1	(A, B, C)	1559			1305	2.4	51.6	1.112	F
	Exit	1	1		1276			1276	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	458	428	1.071	396	4.3	19.9	2.019	F
	Exit	1	1		803			803	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1185	1433	0.827	1187	2.7	2.5	0.134	A
			2	A, C	944	1491	0.633	943	1.4	1.5	0.097	A
		2	1	(A, B, C)	2129			2129	9.9	9.9	0.278	C
	Exit	1	1		1751			1751	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	894	902	0.992	894	14.1	14.4	0.938	F
			2	(A), B	396	907	0.437	398	1.0	0.9	0.171	B
		2	1	(A, B, C)	1566			1290	51.6	115.7	3.855	F
	Exit	1	1		1282			1282	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	458	439	1.044	431	19.9	30.0	3.786	F
	Exit	1	1		820			820	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	978	1439	0.679	979	2.5	1.9	0.112	A
			2	A, C	771	1499	0.514	771	1.5	1.0	0.083	A
	Exit	1	1	(A, B, C)	1744			1749	9.9	1.0	0.076	A
			1		1777			1777	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	968	976	0.992	970	14.4	13.8	0.883	F
			2	(A), B	422	980	0.430	423	0.9	1.0	0.163	A
	Exit	1	1	(A, B, C)	1273			1389	115.7	90.5	4.563	F
			1		1062			1062	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	381	405	0.941	386	30.0	25.3	4.123	F
	Exit	1	1		689			689	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	813	1443	0.564	812	1.9	1.2	0.091	A
			2	A, C	642	1500	0.428	642	1.0	0.7	0.069	A
	Exit	1	1	(A, B, C)	1457			1455	1.0	0.4	0.013	A
			1		1659			1659	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	908	1033	0.880	936	13.8	8.2	0.716	E
			2	(A), B	376	1035	0.363	377	1.0	0.8	0.139	A
	Exit	1	1	(A, B, C)	1069			1284	90.5	20.7	2.099	F
			1		894			894	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	312	461	0.674	365	25.3	12.5	2.585	F
	Exit	1	1		580			580	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	2.84	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
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A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D7	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2084	100.000
B - A526 South		ONE HOUR	✓	1357	100.000
C - Manston Rd West		ONE HOUR	✓	374	100.000

Origin-Destination Data

Demand (Veh/hr)

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		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	135	1307	642
	B - A526 South	1293	0	64
	C - Manston Rd West	276	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	1	2	1
	B - A526 South	2	0	2
	C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.61	26.3	E	1914	2871
B - A526 South	5.98	136.1	F	1241	1861
C - Manston Rd West	3.92	26.9	F	346	519

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1571	393	73	1575	1276	0.0	2.0	0.086	A
B - A526 South	1014	254	584	1012	1064	0.0	3.5	0.181	B
C - Manston Rd West	288	72	1065	284	531	0.0	1.4	0.232	B

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1876	469	86	1873	1521	2.0	4.0	0.131	A
B - A526 South	1224	306	702	1210	1257	3.5	11.6	0.460	D
C - Manston Rd West	338	84	1277	330	634	1.4	5.0	0.670	E

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2297	574	99	2274	1610	4.0	20.3	0.414	C
B - A526 South	1488	372	850	1243	1523	11.6	71.9	2.047	F
C - Manston Rd West	418	105	1336	374	757	5.0	18.2	2.077	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2309	577	98	2285	1609	20.3	26.2	0.610	E
B - A526 South	1486	372	858	1238	1525	71.9	136.0	5.103	F
C - Manston Rd West	406	102	1331	375	764	18.2	26.9	3.745	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1864	466	91	1873	1631	26.2	4.5	0.278	C
B - A526 South	1208	302	696	1313	1268	136.0	117.8	5.980	F
C - Manston Rd West	339	85	1375	347	633	26.9	21.2	3.916	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1566	392	86	1567	1551	4.5	2.4	0.095	A
B - A526 South	1022	256	581	1274	1072	117.8	42.8	3.380	F
C - Manston Rd West	288	72	1312	325	543	21.2	10.6	2.400	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	988	1599	0.617	991	0.0	1.2	0.087	A
			2	A, C	585	1619	0.361	584	0.0	0.6	0.058	A
		2	1	(A, B, C)	1571			1572	0.0	0.2	0.010	A
	Exit	1	1		1276			1276	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	751	952	0.788	749	0.0	3.1	0.213	B
			2	(A), B	264	952	0.277	264	0.0	0.4	0.078	A
		2	1	(A, B, C)	1014			1015	0.0	0.0	0.002	A
	Exit	1	1		1064			1064	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	288	497	0.579	284	0.0	1.4	0.232	B
	Exit	1	1		531			531	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1172	1594	0.735	1171	1.2	2.0	0.106	A
			2	A, C	703	1609	0.437	702	0.6	0.8	0.065	A
		2	1	(A, B, C)	1876			1875	0.2	1.1	0.040	A
	Exit	1	1		1521			1521	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	858	907	0.947	852	3.1	7.9	0.479	D
			2	(A), B	359	906	0.396	357	0.4	0.7	0.110	A
		2	1	(A, B, C)	1224			1217	0.0	2.9	0.083	A
	Exit	1	1		1257			1257	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	338	410	0.824	330	1.4	5.0	0.670	E
	Exit	1	1		634			634	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1420	1585	0.896	1424	2.0	3.0	0.138	A
			2	A, C	853	1601	0.533	850	0.8	1.3	0.077	A
		2	1	(A, B, C)	2297			2273	1.1	16.0	0.298	C
	Exit	1	1		1610			1610	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	863	851	1.013	858	7.9	14.7	0.914	F
			2	(A), B	387	851	0.455	385	0.7	1.3	0.171	B
		2	1	(A, B, C)	1488			1250	2.9	56.0	1.348	F
	Exit	1	1		1523			1523	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	418	385	1.085	374	5.0	18.2	2.077	F
	Exit	1	1		757			757	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1428	1584	0.902	1428	3.0	3.4	0.144	A
			2	A, C	859	1600	0.537	858	1.3	1.3	0.079	A
		2	1	(A, B, C)	2309			2288	16.0	21.5	0.490	D
	Exit	1	1		1609			1609	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	856	847	1.010	856	14.7	14.8	1.033	F
			2	(A), B	382	848	0.451	383	1.3	1.3	0.186	B
		2	1	(A, B, C)	1486			1238	56.0	120.0	4.337	F
	Exit	1	1		1525			1525	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	406	387	1.052	375	18.2	26.9	3.745	F
	Exit	1	1		764			764	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1177	1590	0.740	1177	3.4	1.9	0.120	A
			2	A, C	696	1603	0.434	696	1.3	0.8	0.069	A
	Exit	1	1	(A, B, C)	1864			1872	21.5	1.8	0.178	B
			1		1631			1631	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	904	910	0.994	905	14.8	14.6	0.990	F
			2	(A), B	409	909	0.450	408	1.3	1.3	0.186	B
	Exit	1	1	(A, B, C)	1208			1313	120.0	101.9	5.260	F
			1		1268			1268	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	339	369	0.917	347	26.9	21.2	3.916	F
	Exit	1	1		633			633	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	984	1589	0.619	986	1.9	1.4	0.092	A
			2	A, C	581	1607	0.362	581	0.8	0.5	0.058	A
	Exit	1	1	(A, B, C)	1566			1565	1.8	0.4	0.015	A
			1		1551			1551	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	871	952	0.915	901	14.6	10.3	0.853	F
			2	(A), B	371	951	0.390	373	1.3	0.8	0.163	A
	Exit	1	1	(A, B, C)	1022			1242	101.9	31.7	2.756	F
			1		1072			1072	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	288	394	0.730	325	21.2	10.6	2.400	F
	Exit	1	1		543			543	0.0	0.0	0.000	A

Lane Simulation module - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.40	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D8	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1822	100.000
B - A526 South		ONE HOUR	✓	1045	100.000
C - Manston Rd West		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	609
B - A526 South	970	0	75
C - Manston Rd West	314	79	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	2
B - A526 South	6	0	11
C - Manston Rd West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.36	11.6	C	1672	2508
B - A526 South	0.39	7.4	C	959	1438
C - Manston Rd West	0.66	5.2	E	359	539

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1376	344	58	1376	1071	0.0	2.0	0.086	A
B - A526 South	788	197	568	788	867	0.0	1.4	0.105	A
C - Manston Rd West	290	73	839	290	517	0.0	0.7	0.118	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1631	408	70	1629	1277	2.0	3.3	0.119	A
B - A526 South	937	234	668	937	1032	1.4	2.5	0.155	A
C - Manston Rd West	356	89	992	355	613	0.7	1.3	0.197	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2005	501	86	1994	1557	3.3	11.1	0.277	C
B - A526 South	1149	287	818	1146	1262	2.5	7.0	0.316	C
C - Manston Rd West	429	107	1216	427	748	1.3	4.2	0.478	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2003	501	84	2010	1580	11.1	11.5	0.357	C
B - A526 South	1156	289	828	1158	1265	7.0	7.3	0.387	C
C - Manston Rd West	435	109	1235	429	752	4.2	5.2	0.661	E

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1640	410	69	1639	1282	11.5	3.5	0.154	A
B - A526 South	946	236	673	947	1035	7.3	2.5	0.195	B
C - Manston Rd West	351	88	1001	351	619	5.2	1.3	0.307	C

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1378	345	58	1377	1064	3.5	2.0	0.089	A
B - A526 South	778	195	565	779	870	2.5	1.4	0.113	A

C - Manston Rd West	293	73	828	294	515	1.3	0.7	0.142	A
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	810	1441	0.562	809	0.0	1.2	0.087	A
			2	A, C	568	1511	0.376	568	0.0	0.6	0.063	A
	Exit	1	1	(A, B, C)	1376			1377	0.0	0.2	0.009	A
			1		1071			1071	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	611	1049	0.582	613	0.0	1.2	0.118	A
			2	(A), B	176	1054	0.167	176	0.0	0.2	0.061	A
	Exit	1	1	(A, B, C)	788			788	0.0	0.0	0.000	A
			1		867			867	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	290	751	0.386	290	0.0	0.7	0.118	A
	Exit	1	1		517			517	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	961	1433	0.671	962	1.2	1.6	0.105	A
			2	A, C	668	1505	0.444	668	0.6	0.8	0.071	A
	Exit	1	1	(A, B, C)	1631			1629	0.2	0.8	0.028	A
			1		1277			1277	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	713	1010	0.705	712	1.2	2.2	0.179	B
			2	(A), B	225	1015	0.221	225	0.2	0.3	0.072	A
	Exit	1	1	(A, B, C)	937			937	0.0	0.0	0.001	A
			1		1032			1032	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	356	669	0.533	355	0.7	1.3	0.197	B
	Exit	1	1		613			613	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1176	1423	0.826	1176	1.6	2.7	0.134	A
			2	A, C	819	1494	0.548	818	0.8	1.2	0.085	A
	Exit	1	1	(A, B, C)	2005			1995	0.8	7.3	0.163	A
			1		1557			1557	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	835	947	0.882	835	2.2	5.5	0.355	C
			2	(A), B	311	953	0.327	311	0.3	0.5	0.092	A
	Exit	1	1	(A, B, C)	1149			1147	0.0	1.0	0.030	A
			1		1262			1262	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	429	543	0.790	427	1.3	4.2	0.478	D
	Exit	1	1		748			748	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1181	1429	0.826	1181	2.7	2.7	0.140	A
			2	A, C	829	1498	0.554	828	1.2	1.2	0.087	A
	Exit	1	1	(A, B, C)	2003			2010	7.3	7.6	0.239	B
			1		1580			1580	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	837	941	0.889	839	5.5	5.6	0.410	C
			2	(A), B	319	946	0.337	319	0.5	0.5	0.098	A
	Exit	1	1	(A, B, C)	1156			1155	1.0	1.2	0.062	A
			1		1265			1265	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	435	532	0.818	429	4.2	5.2	0.661	E
	Exit	1	1		752			752	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	967	1437	0.673	966	2.7	1.8	0.112	A

A - A256 North	Entry	1	2	A, C	671	1504	0.446	673	1.2	0.8	0.073	A
		2	1	(A, B, C)	1640			1638	7.6	1.0	0.059	A
	Exit	1	1		1282			1282	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	720	1007	0.716	721	5.6	2.2	0.223	B
			2	(A), B	225	1011	0.223	226	0.5	0.3	0.078	A
		2	1	(A, B, C)	946			946	1.2	0.0	0.011	A
	Exit	1	1		1035			1035	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	351	662	0.531	351	5.2	1.3	0.307	C
	Exit	1	1		619			619	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	813	1442	0.563	812	1.8	1.2	0.089	A
			2	A, C	564	1512	0.373	565	0.8	0.6	0.062	A
		2	1	(A, B, C)	1378			1377	1.0	0.3	0.010	A
	Exit	1	1		1064			1064	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	607	1053	0.577	608	2.2	1.3	0.127	A
			2	(A), B	171	1059	0.161	171	0.3	0.2	0.065	A
		2	1	(A, B, C)	778			778	0.0	0.0	0.000	A
	Exit	1	1		870			870	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	293	757	0.387	294	1.3	0.7	0.142	A
	Exit	1	1		515			515	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	6.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D9	2039 + Dev Traffic	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 - A256 North		ONE HOUR	✓	1999	100.000
B - A526 South		ONE HOUR	✓	1581	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	181	1078	740
	B - A526 South	1336	0	245
	C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	3
C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.61	25.2	E	1833	2750
B - A526 South	14.09	329.6	F	1457	2185
C - Manston Rd West	1.50	12.6	F	414	620

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1510	378	84	1512	1396	0.0	2.2	0.091	A
B - A526 South	1195	299	698	1188	897	0.0	6.9	0.266	C
C - Manston Rd West	339	85	1141	338	745	0.0	1.4	0.202	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1797	449	100	1804	1574	2.2	4.2	0.142	A
B - A526 South	1431	358	834	1313	1070	6.9	38.2	1.082	F
C - Manston Rd West	408	102	1276	398	871	1.4	4.3	0.504	D

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2191	548	121	2174	1596	4.2	18.3	0.404	C
B - A526 South	1742	436	992	1223	1304	38.2	162.5	4.889	F
C - Manston Rd West	495	124	1229	488	986	4.3	11.0	1.166	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2200	550	122	2184	1605	18.3	25.1	0.614	E
B - A526 South	1746	437	1008	1235	1298	162.5	293.7	11.093	F
C - Manston Rd West	487	122	1236	491	1007	11.0	12.5	1.504	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1807	452	105	1811	1588	25.1	4.9	0.268	C
B - A526 South	1427	357	840	1318	1075	293.7	329.4	14.094	F
C - Manston Rd West	410	103	1279	414	879	12.5	5.7	1.016	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1496	374	86	1498	1578	4.9	2.3	0.096	A
B - A526 South	1196	299	687	1405	896	329.4	282.4	12.077	F

C - Manston Rd West	341	85	1324	340	769	5.7	3.2	0.587	E
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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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	812	1446	0.562	813	0.0	1.1	0.087	A
			2	A, C	698	1499	0.465	698	0.0	0.8	0.072	A
		2	1	(A, B, C)	1510			1510	0.0	0.3	0.011	A
	Exit	1	1		1396			1396	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	901	1015	0.887	895	0.0	5.6	0.295	C
			2	(A), B	294	1013	0.290	293	0.0	0.4	0.079	A
		2	1	(A, B, C)	1195			1195	0.0	0.8	0.022	A
	Exit	1	1		897			897	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	339	591	0.574	338	0.0	1.4	0.202	B
	Exit	1	1		745			745	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	970	1433	0.677	970	1.1	1.6	0.106	A
			2	A, C	832	1490	0.558	834	0.8	1.2	0.085	A
		2	1	(A, B, C)	1797			1802	0.3	1.3	0.045	A
	Exit	1	1		1574			1574	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	960	958	1.003	951	5.6	13.0	0.684	E
			2	(A), B	361	955	0.378	361	0.4	0.8	0.115	A
		2	1	(A, B, C)	1431			1321	0.8	24.4	0.539	D
	Exit	1	1		1070			1070	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	408	517	0.789	398	1.4	4.3	0.504	D
	Exit	1	1		871			871	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1181	1424	0.829	1182	1.6	2.6	0.134	A
			2	A, C	993	1477	0.672	992	1.2	1.9	0.104	A
		2	1	(A, B, C)	2191			2174	1.3	13.9	0.284	C
	Exit	1	1		1596			1596	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	886	891	0.994	886	13.0	14.6	0.949	F
			2	(A), B	340	886	0.383	337	0.8	1.0	0.153	A
		2	1	(A, B, C)	1742			1225	24.4	147.1	4.150	F
	Exit	1	1		1304			1304	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	495	543	0.912	488	4.3	11.0	1.166	F
	Exit	1	1		986			986	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1174	1420	0.827	1176	2.6	2.6	0.138	A
			2	A, C	1009	1476	0.684	1008	1.9	1.8	0.108	A
		2	1	(A, B, C)	2200			2183	13.9	20.7	0.490	D
	Exit	1	1		1605			1605	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	898	883	1.016	897	14.6	14.4	0.966	F
			2	(A), B	340	881	0.385	338	1.0	0.9	0.158	A
		2	1	(A, B, C)	1746			1238	147.1	278.3	10.371	F
	Exit	1	1		1298			1298	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	487	539	0.904	491	11.0	12.5	1.504	F
	Exit	1	1		1007			1007	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	973	1430	0.680	971	2.6	1.9	0.115	A

A - A256 North	Entry	1	2	A, C	840	1487	0.565	840	1.8	1.2	0.093	A
		2	1	(A, B, C)	1807			1813	20.7	1.8	0.164	A
	Exit	1	1		1588			1588	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	960	953	1.009	961	14.4	14.5	0.922	F
			2	(A), B	357	949	0.377	357	0.9	0.8	0.146	A
		2	1	(A, B, C)	1427			1317	278.3	314.3	13.463	F
	Exit	1	1		1075			1075	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	410	512	0.802	414	12.5	5.7	1.016	F
	Exit	1	1		879			879	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	809	1443	0.561	810	1.9	1.1	0.090	A
			2	A, C	686	1497	0.458	687	1.2	0.8	0.074	A
		2	1	(A, B, C)	1496			1495	1.8	0.4	0.014	A
	Exit	1	1		1578			1578	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	1020	1019	1.000	1019	14.5	14.5	0.857	F
			2	(A), B	385	1017	0.378	386	0.8	0.9	0.138	A
		2	1	(A, B, C)	1196			1405	314.3	267.1	11.625	F
	Exit	1	1		896			896	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	341	488	0.699	340	5.7	3.2	0.587	E
	Exit	1	1		769			769	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	6.78	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50

C - Manston Rd West	Evenly split	10.00
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Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
		1	✓		✓
B - A526 South	1 [Give-way line]	1		✓	
		2		✓	
	2	1	✓	✓	✓
		1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
		1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
		1			
C - Manston Rd West	1 [Give-way line]	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
D10	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	2092	100.000
B - A526 South		ONE HOUR	✓	1381	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	135	1307	650

From	B - A526 South	1293	0	88
	C - Manston Rd West	342	280	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	1	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.86	38.0	F	1922	2883
B - A526 South	7.46	159.7	F	1272	1908
C - Manston Rd West	25.35	244.0	F	570	856

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1575	394	197	1574	1313	0.0	2.8	0.096	A
B - A526 South	1032	258	588	1029	1183	0.0	3.8	0.195	B
C - Manston Rd West	463	116	1067	443	550	0.0	8.1	0.671	E

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1892	473	186	1885	1505	2.8	5.1	0.157	A
B - A526 South	1245	311	705	1233	1366	3.8	14.7	0.571	D
C - Manston Rd West	560	140	1276	415	662	8.1	41.1	3.576	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2298	575	182	2240	1510	5.1	27.7	0.516	D
B - A526 South	1523	381	836	1226	1585	14.7	83.8	2.405	F
C - Manston Rd West	683	171	1290	402	772	41.1	112.4	11.606	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2314	579	183	2262	1516	27.7	38.0	0.862	F
B - A526 South	1524	381	848	1231	1596	83.8	159.7	6.048	F
C - Manston Rd West	685	171	1300	399	780	112.4	182.6	22.224	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1879	470	177	1917	1543	38.0	6.4	0.432	D
B - A526 South	1247	312	723	1282	1372	159.7	154.9	7.458	F
C - Manston Rd West	558	139	1328	392	677	182.6	221.8	25.349	F

17:45 - 18:00

Arm	Total Demand	Junction Arrivals	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
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Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1196	1540	0.777	1195	3.6	2.6	0.132	A
			2	A, C	723	1555	0.465	723	1.3	0.9	0.075	A
		2	1	(A, B, C)	1879			1919	33.1	2.9	0.323	C
	Exit	1	1		1543			1543	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	895	899	0.996	896	15.0	14.6	0.999	F
			2	(A), B	388	898	0.431	386	1.1	1.1	0.175	B
		2	1	(A, B, C)	1247			1283	143.8	139.1	6.734	F
	Exit	1	1		1372			1372	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	558	390	1.429	392	182.6	221.8	25.349	F
	Exit	1	1		677			677	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	976	1543	0.633	977	2.6	1.5	0.097	A
			2	A, C	596	1556	0.383	598	0.9	0.5	0.063	A
		2	1	(A, B, C)	1573			1573	2.9	0.3	0.023	A
	Exit	1	1		1566			1566	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	929	946	0.982	939	14.6	12.8	0.894	F
			2	(A), B	399	946	0.421	398	1.1	1.1	0.164	A
		2	1	(A, B, C)	1059			1327	139.1	68.0	4.382	F
	Exit	1	1		1150			1150	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	471	378	1.247	382	221.8	243.9	14.924	F
	Exit	1	1		578			578	0.0	0.0	0.000	A

Lane Simulation module - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.26	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D11	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1894	100.000
B - A526 South		ONE HOUR	✓	1240	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	140	1073	681
	B - A526 South	970	0	270
	C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	1
B - A526 South	6	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.44	16.1	D	1739	2609
B - A526 South	2.66	69.4	F	1137	1706
C - Manston Rd West	0.84	7.2	F	430	644

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1427	357	98	1427	1095	0.0	2.1	0.089	A
B - A526 South	941	235	616	939	908	0.0	2.5	0.142	A
C - Manston Rd West	350	87	844	349	712	0.0	0.9	0.132	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1710	428	119	1707	1301	2.1	3.9	0.128	A
B - A526 South	1119	280	741	1111	1084	2.5	6.3	0.274	C
C - Manston Rd West	425	106	995	424	857	0.9	1.8	0.235	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2071	518	142	2051	1487	3.9	14.5	0.339	C
B - A526 South	1363	341	887	1236	1307	6.3	36.7	1.088	F
C - Manston Rd West	517	129	1122	507	1000	1.8	6.2	0.577	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2090	523	144	2085	1495	14.5	16.0	0.437	D
B - A526 South	1362	340	906	1237	1323	36.7	69.4	2.660	F
C - Manston Rd West	513	128	1125	514	1017	6.2	7.2	0.842	F

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1703	426	120	1705	1408	16.0	3.9	0.193	B
B - A526 South	1103	276	744	1244	1080	69.4	31.6	2.390	F
C - Manston Rd West	425	106	1102	425	887	7.2	3.4	0.527	D

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1436	359	100	1439	1108	3.9	2.0	0.095	A
B - A526 South	933	233	626	965	913	31.6	3.9	0.596	E

C - Manston Rd West	349	87	858	350	733	3.4	1.0	0.222	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	812	1424	0.570	810	0.0	1.2	0.089	A
			2	A, C	616	1504	0.409	616	0.0	0.7	0.065	A
		2	(A, B, C)	1427			1427	0.0	0.3	0.010	A	
	Exit	1	1		1095			1095	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	748	1046	0.715	747	0.0	2.3	0.161	A
			2	(A), B	193	1035	0.186	192	0.0	0.2	0.065	A
		2	(A, B, C)	941			941	0.0	0.0	0.000	A	
	Exit	1	1		908			908	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	350	755	0.463	349	0.0	0.9	0.132	A
	Exit	1	1		712			712	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	965	1408	0.686	966	1.2	1.8	0.109	A
			2	A, C	741	1490	0.498	741	0.7	0.9	0.077	A
		2	(A, B, C)	1710			1707	0.3	1.2	0.033	A	
	Exit	1	1		1301			1301	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	863	993	0.870	859	2.3	5.3	0.309	C
			2	(A), B	251	984	0.255	252	0.2	0.3	0.079	A
		2	(A, B, C)	1119			1114	0.0	0.7	0.016	A	
	Exit	1	1		1084			1084	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	425	670	0.635	424	0.9	1.8	0.235	B
	Exit	1	1		857			857	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1167	1396	0.836	1165	1.8	2.8	0.136	A
			2	A, C	888	1476	0.602	887	0.9	1.4	0.095	A
		2	(A, B, C)	2071			2056	1.2	10.3	0.221	B	
	Exit	1	1		1487			1487	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	934	934	1.002	923	5.3	13.0	0.697	E
			2	(A), B	315	924	0.341	312	0.3	0.8	0.112	A
		2	(A, B, C)	1363			1250	0.7	23.0	0.524	D	
	Exit	1	1		1307			1307	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	517	601	0.860	507	1.8	6.2	0.577	D
	Exit	1	1		1000			1000	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1177	1394	0.845	1180	2.8	2.7	0.142	A
			2	A, C	907	1476	0.614	906	1.4	1.5	0.098	A
		2	(A, B, C)	2090			2084	10.3	11.8	0.314	C	
	Exit	1	1		1495			1495	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	926	926	1.000	923	13.0	13.9	0.874	F
			2	(A), B	313	921	0.340	313	0.8	0.7	0.128	A
		2	(A, B, C)	1362			1239	23.0	54.9	1.972	F	
	Exit	1	1		1323			1323	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	513	598	0.857	514	6.2	7.2	0.842	F
	Exit	1	1		1017			1017	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	962	1413	0.681	961	2.7	1.8	0.115	A

A - A256 North	Entry	1	2	A, C	744	1492	0.499	744	1.5	1.0	0.082	A
		2	1	(A, B, C)	1703			1706	11.8	1.1	0.092	A
	Exit	1	1		1408			1408	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	929	992	0.938	945	13.9	9.8	0.754	E
			2	(A), B	299	979	0.306	300	0.7	0.5	0.120	A
		2	1	(A, B, C)	1103			1229	54.9	21.3	1.813	F
	Exit	1	1		1080			1080	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	425	609	0.697	425	7.2	3.4	0.527	D
	Exit	1	1		887			887	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	811	1421	0.571	813	1.8	1.1	0.092	A
			2	A, C	626	1500	0.417	626	1.0	0.7	0.068	A
		2	1	(A, B, C)	1436			1438	1.1	0.2	0.013	A
	Exit	1	1		1108			1108	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	755	1046	0.722	765	9.8	2.8	0.369	C
			2	(A), B	199	1034	0.193	200	0.5	0.2	0.086	A
		2	1	(A, B, C)	933			955	21.3	0.9	0.322	C
	Exit	1	1		913			913	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	349	745	0.468	350	3.4	1.0	0.222	B
	Exit	1	1		733			733	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	B - A526 South - Lane Simulation	Arm B: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	4.55	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00

B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D12	2039 B+Dev Net Change	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 - A256 North		ONE HOUR	✓	1876	100.000
B - A526 South		ONE HOUR	✓	1499	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

	To

		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	181	955	740
	B - A526 South	1254	0	245
	C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	2	5	2
	B - A526 South	4	0	3
	C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.28	9.3	C	1722	2583
B - A526 South	10.88	246.0	F	1378	2067
C - Manston Rd West	1.22	10.3	F	410	614

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)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1418	355	83	1417	1337	0.0	2.1	0.081	A
B - A526 South	1132	283	698	1132	802	0.0	4.5	0.202	B
C - Manston Rd West	334	84	1086	334	744	0.0	1.3	0.183	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1689	422	99	1686	1535	2.1	3.4	0.108	A
B - A526 South	1357	339	826	1287	959	4.5	25.4	0.772	E
C - Manston Rd West	404	101	1235	399	878	1.3	3.4	0.404	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2070	517	120	2065	1584	3.4	9.3	0.234	B
B - A526 South	1644	411	1008	1218	1178	25.4	126.5	3.682	F
C - Manston Rd West	492	123	1219	485	1006	3.4	9.5	1.005	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2056	514	120	2059	1587	9.3	9.1	0.276	C
B - A526 South	1643	411	1009	1226	1170	126.5	234.3	8.754	F
C - Manston Rd West	487	122	1224	483	1011	9.5	10.3	1.216	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1683	421	101	1690	1563	9.1	2.8	0.127	A
B - A526 South	1353	338	835	1308	956	234.3	246.0	10.880	F
C - Manston Rd West	404	101	1257	408	887	10.3	4.7	0.840	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1414	353	87	1413	1566	2.8	2.0	0.084	A
B - A526 South	1133	283	691	1405	809	246.0	179.1	8.988	F
C - Manston Rd West	338	84	1316	337	781	4.7	3.0	0.501	D

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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	720	1455	0.495	720	0.0	1.0	0.077	A
			2	A, C	698	1501	0.465	698	0.0	0.9	0.072	A
	Exit	1	1	(A, B, C)	1418			1418	0.0	0.2	0.006	A
B - A526 South	Entry	1	1	A, C	860	1025	0.839	862	0.0	3.9	0.233	B
			2	(A), B	270	1022	0.264	271	0.0	0.3	0.073	A
	Exit	1	1	(A, B, C)	1132			1130	0.0	0.3	0.006	A
	C - Manston Rd West	Exit	1	1	A, C, B	304	625	0.536	334	0.0	1.3	0.183
Exit												

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	861	1448	0.595	860	1.0	1.4	0.091	A
			2	A, C	827	1488	0.556	826	0.9	1.3	0.084	A
	Exit	1	1	(A, B, C)	1689			1688	0.2	0.7	0.020	A
B - A526 South	Entry	1	1	A, C	953	969	0.983	942	3.9	11.8	0.604	E
			2	(A), B	345	964	0.358	344	0.3	0.7	0.106	A
	Exit	1	1	(A, B, C)	1357			1298	0.3	12.9	0.288	C
	C - Manston Rd West	Exit	1	1	A, C, B	404	544	0.742	399	1.3	3.4	0.404
Exit												

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1058	1434	0.738	1058	1.4	2.0	0.114	A
			2	A, C	1007	1478	0.681	1008	1.3	1.8	0.105	A
	Exit	1	1	(A, B, C)	2070			2065	0.7	5.5	0.124	A
B - A526 South	Entry	1	1	A, C	892	890	1.002	892	11.8	14.4	0.932	F
			2	(A), B	325	889	0.366	326	0.7	0.8	0.146	A
	Exit	1	1	(A, B, C)	1644			1217	12.9	111.2	2.953	F
	C - Manston Rd West	Exit	1	1	A, C, B	492	553	0.890	485	3.4	9.5	1.005
Exit												

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1049	1436	0.730	1050	2.0	2.0	0.117	A
			2	A, C	1009	1478	0.682	1009	1.8	1.8	0.108	A
	Exit	1	1	(A, B, C)	2056			2057	5.5	5.3	0.163	A
B - A526 South	Entry	1	1	A, C	892	891	1.003	893	14.4	14.5	0.979	F
			2	(A), B	333	886	0.375	332	0.8	0.9	0.149	A
	Exit	1	1	(A, B, C)	1643			1225	111.2	219.0	8.029	F
	C - Manston Rd West	Exit	1	1	A, C, B	487	551	0.882	483	9.5	10.3	1.216
Exit												

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	854	1447	0.590	855	2.0	1.3	0.095	A
			2	A, C	833	1487	0.560	835	1.8	1.0	0.089	A
		2	1	(A, B, C)	1683			1687	5.3	0.5	0.035	A
	Exit	1	1		1563			1563	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	954	963	0.989	953	14.5	14.4	0.914	F
			2	(A), B	356	963	0.370	356	0.9	0.9	0.140	A
		2	1	(A, B, C)	1353			1310	219.0	230.6	10.211	F
	Exit	1	1		956			956	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	404	532	0.758	408	10.3	4.7	0.840	F
	Exit	1	1		887			887	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	724	1459	0.496	722	1.3	1.0	0.079	A
			2	A, C	690	1497	0.461	691	1.0	0.8	0.073	A
		2	1	(A, B, C)	1414			1413	0.5	0.2	0.007	A
	Exit	1	1		1566			1566	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	1024	1026	0.998	1025	14.4	14.4	0.849	F
			2	(A), B	380	1026	0.370	381	0.9	0.8	0.132	A
		2	1	(A, B, C)	1133			1404	230.6	163.8	8.364	F
	Exit	1	1		809			809	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	338	499	0.677	337	4.7	3.0	0.501	D
	Exit	1	1		781			781	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Last Run	Lane Simulation	C - Manston Rd West - Lane Simulation	Arm C: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	5.01	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00

B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D13	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	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 - A256 North		ONE HOUR	✓	1980	100.000
B - A526 South		ONE HOUR	✓	1253	100.000
C - Manston Rd West		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

	To

		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	135	1195	650
	B - A526 South	1165	0	88
	C - Manston Rd West	342	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A256 North	B - A526 South	C - Manston Rd West
From	A - A256 North	1	2	1
	B - A526 South	2	0	2
	C - Manston Rd West	1	1	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.40	15.9	C	1822	2733
B - A526 South	3.51	87.5	F	1147	1721
C - Manston Rd West	22.79	207.1	F	572	858

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1486	372	207	1486	1228	0.0	2.2	0.086	A
B - A526 South	943	236	591	945	1102	0.0	2.8	0.166	A
C - Manston Rd West	471	118	979	457	557	0.0	5.9	0.504	D

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1782	445	204	1779	1408	2.2	3.8	0.127	A
B - A526 South	1125	281	706	1121	1277	2.8	7.4	0.344	C
C - Manston Rd West	558	139	1158	454	669	5.9	30.4	2.455	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2191	548	189	2177	1509	3.8	13.5	0.311	C
B - A526 South	1380	345	861	1214	1504	7.4	47.8	1.409	F
C - Manston Rd West	689	172	1278	421	798	30.4	94.7	9.063	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	2199	550	182	2189	1496	13.5	15.9	0.404	C
B - A526 South	1369	342	864	1206	1507	47.8	87.5	3.409	F
C - Manston Rd West	682	171	1268	410	802	94.7	162.0	18.840	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1782	446	182	1776	1517	15.9	3.7	0.168	B
B - A526 South	1127	282	703	1262	1255	87.5	57.2	3.514	F
C - Manston Rd West	562	140	1299	401	667	162.0	200.8	22.792	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1493	373	213	1491	1350	3.7	2.3	0.087	A
B - A526 South	941	235	591	1060	1113	57.2	8.9	1.279	F
C - Manston Rd West	468	117	1087	476	565	200.8	207.1	14.752	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	896	1521	0.589	895	0.0	1.3	0.087	A
			2	A, C	591	1539	0.384	591	0.0	0.6	0.062	A
	Exit	1	1	(A, B, C)	1486			1487	0.0	0.3	0.009	A
B - A526 South	Entry	1	1	A, C	714	948	0.753	715	0.0	2.5	0.193	B
			2	(A), B	230	947	0.242	230	0.0	0.3	0.078	A
	Exit	1	1	(A, B, C)	943			943	0.0	0.0	0.001	A
			1	1		1102			1102	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	471	535	0.880	457	0.0	5.9	0.504	D
	Exit	1	1		557			557	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1074	1521	0.706	1073	1.3	1.9	0.108	A
			2	A, C	706	1539	0.459	706	0.6	0.9	0.071	A
	Exit	1	1	(A, B, C)	1782			1780	0.3	1.0	0.033	A
B - A526 South	Entry	1	1	A, C	812	904	0.898	813	2.5	5.8	0.388	C
			2	(A), B	309	906	0.341	309	0.3	0.5	0.099	A
	Exit	1	1	(A, B, C)	1125			1121	0.0	1.2	0.032	A
			1	1		1277			1277	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	558	460	1.212	454	5.9	30.4	2.455	F
	Exit	1	1		669			669	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1316	1533	0.859	1315	1.9	3.1	0.135	A
			2	A, C	860	1548	0.556	861	0.9	1.1	0.083	A
	Exit	1	1	(A, B, C)	2191			2176	1.0	9.3	0.196	B
B - A526 South	Entry	1	1	A, C	859	847	1.013	850	5.8	13.9	0.832	E
			2	(A), B	364	847	0.429	364	0.5	1.0	0.147	A
	Exit	1	1	(A, B, C)	1380			1222	1.2	32.9	0.765	E
			1	1		1504			1504	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	689	411	1.675	421	30.4	94.7	9.063	F
	Exit	1	1		798			798	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1324	1537	0.861	1325	3.1	3.0	0.139	A
			2	A, C	866	1552	0.558	864	1.1	1.3	0.084	A
	Exit	1	1	(A, B, C)	2199			2190	9.3	11.6	0.287	C
B - A526 South	Entry	1	1	A, C	837	844	0.992	837	13.9	14.6	1.020	F
			2	(A), B	367	846	0.434	370	1.0	1.1	0.174	B
	Exit	1	1	(A, B, C)	1369			1205	32.9	71.9	2.646	F
			1	1		1507			1507	0.0	0.0	0.000
C - Manston Rd West	Entry	1	1	A, C, B	682	415	1.646	410	94.7	162.0	18.840	F
	Exit	1	1		802			802	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1076	1537	0.700	1073	3.0	1.9	0.110	A
			2	A, C	704	1550	0.454	703	1.3	0.8	0.072	A
		2	1	(A, B, C)	1782			1780	11.6	1.0	0.074	A
	Exit	1	1		1517			1517	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	868	906	0.958	882	14.6	12.5	0.943	F
			2	(A), B	377	906	0.416	380	1.1	0.9	0.169	B
		2	1	(A, B, C)	1127			1245	71.9	43.9	2.819	F
	Exit	1	1		1255			1255	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	562	403	1.395	401	162.0	200.8	22.792	F
	Exit	1	1		667			667	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)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	901	1521	0.593	900	1.9	1.4	0.088	A
			2	A, C	592	1535	0.386	591	0.8	0.7	0.062	A
		2	1	(A, B, C)	1493			1493	1.0	0.2	0.009	A
	Exit	1	1		1350			1350	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	759	948	0.800	788	12.5	4.4	0.593	E
			2	(A), B	271	949	0.286	272	0.9	0.4	0.126	A
		2	1	(A, B, C)	941			1030	43.9	4.2	0.860	F
	Exit	1	1		1113			1113	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	468	490	0.956	476	200.8	207.1	14.752	F
	Exit	1	1		565			565	0.0	0.0	0.000	A

Lane Simulation module - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A2 - Lane Simulation module [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.
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Lane Simulation module	✓	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic Considering Secondary Lanes (%)
A - A256 North	Evenly split	10.00
B - A526 South	Evenly split	32.50
C - Manston Rd West	Evenly split	10.00

Lanes

Arm	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
A - A256 North	1 [Give-way line]	1	B	✓	5.00	0	99999
		2	A, C	✓	5.00	0	99999
	2	1	(A, B, C)		Infinity		
B - A526 South	1 [Give-way line]	1	A, C	✓	15.00	0	99999
		2	(A), B	✓	15.00	0	99999
	2	1	(A, B, C)		Infinity		
C - Manston Rd West	1 [Give-way line]	1	A, C, B		Infinity	0	99999

Entry Lane slope and intercept

Arm	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - A256 North	1 [Give-way line]	1	0.346	986
		2	0.346	986
B - A526 South	1 [Give-way line]	1	0.438	1373
		2	0.438	1373
C - Manston Rd West	1 [Give-way line]	1	0.584	1353

Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
B - A526 South	1 [Give-way line]	1	✓		✓
		2		✓	
	2	1	✓	✓	✓
C - Manston Rd West	1 [Give-way line]	1	✓	✓	✓

Secondary Lane Movements

Arm	Lane Level	Lane	Destination arm		
			A256 North	A526 South	Manston Rd West
A - A256 North	1 [Give-way line]	1			
		2			
	2	1			
B - A526 South	1 [Give-way line]	1			
		2	✓		
	2	1			
C - Manston Rd West	1 [Give-way line]	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
D14	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	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 - A256 North		ONE HOUR	✓	1791	100.000
B - A526 South		ONE HOUR	✓	1203	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	970	681
B - A526 South	933	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	1
B - A526 South	5	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.22	7.6	B	1643	2465
B - A526 South	2.18	55.2	F	1107	1661
C - Manston Rd West	0.74	6.3	E	426	640

Main Results for each time segment

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1354	339	97	1354	1067	0.0	1.9	0.080	A
B - A526 South	915	229	622	914	829	0.0	2.2	0.134	A
C - Manston Rd West	349	87	815	349	721	0.0	0.9	0.129	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1604	401	118	1606	1270	1.9	2.9	0.106	A
B - A526 South	1084	271	740	1082	984	2.2	4.9	0.248	B
C - Manston Rd West	419	105	970	419	852	0.9	1.7	0.221	B

13:15 - 13:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1962	490	140	1965	1474	2.9	6.8	0.197	B
B - A526 South	1332	333	901	1233	1204	4.9	31.8	0.970	F
C - Manston Rd West	514	129	1108	506	1027	1.7	6.0	0.560	D

13:30 - 13:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1971	493	142	1966	1496	6.8	7.6	0.221	B
B - A526 South	1330	333	900	1246	1207	31.8	55.2	2.183	F
C - Manston Rd West	511	128	1124	514	1022	6.0	6.3	0.739	E

13:45 - 14:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1614	404	119	1619	1352	7.6	2.7	0.115	A
B - A526 South	1076	269	742	1184	996	55.2	19.4	1.686	F
C - Manston Rd West	418	104	1046	424	880	6.3	2.2	0.435	D

14:00 - 14:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	1354	339	98	1353	1069	2.7	1.9	0.081	A
B - A526 South	907	227	621	923	831	19.4	2.4	0.365	C

C - Manston Rd West	348	87	818	349	725	2.2	0.9	0.185	B
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Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	732	1448	0.505	732	0.0	1.0	0.080	A
			2	A, C	623	1502	0.415	622	0.0	0.8	0.067	A
		2	1	(A, B, C)	1354			1355	0.0	0.1	0.006	A
	Exit	1	1		1067			1067	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	732	1050	0.697	731	0.0	2.0	0.150	A
			2	(A), B	182	1045	0.175	182	0.0	0.2	0.064	A
		2	1	(A, B, C)	915			914	0.0	0.0	0.000	A
	Exit	1	1		829			829	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	349	773	0.451	349	0.0	0.9	0.129	A
	Exit	1	1		721			721	0.0	0.0	0.000	A

13:00 - 13:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	865	1437	0.602	866	1.0	1.3	0.096	A
			2	A, C	739	1490	0.496	740	0.8	1.0	0.077	A
		2	1	(A, B, C)	1604			1604	0.1	0.5	0.019	A
	Exit	1	1		1270			1270	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	840	1001	0.839	839	2.0	4.3	0.284	C
			2	(A), B	243	994	0.245	243	0.2	0.3	0.077	A
		2	1	(A, B, C)	1084			1083	0.0	0.2	0.009	A
	Exit	1	1		984			984	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	419	687	0.610	419	0.9	1.7	0.221	B
	Exit	1	1		852			852	0.0	0.0	0.000	A

13:15 - 13:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1064	1426	0.747	1063	1.3	2.3	0.121	A
			2	A, C	900	1478	0.609	901	1.0	1.3	0.094	A
		2	1	(A, B, C)	1962			1964	0.5	3.3	0.089	A
	Exit	1	1		1474			1474	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	934	933	1.001	925	4.3	12.6	0.669	E
			2	(A), B	309	927	0.334	308	0.3	0.7	0.109	A
		2	1	(A, B, C)	1332			1244	0.2	18.6	0.426	D
	Exit	1	1		1204			1204	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	514	611	0.841	506	1.7	6.0	0.560	D
	Exit	1	1		1027			1027	0.0	0.0	0.000	A

13:30 - 13:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	1067	1425	0.749	1066	2.3	2.2	0.123	A
			2	A, C	901	1479	0.610	900	1.3	1.5	0.096	A
		2	1	(A, B, C)	1971			1968	3.3	3.9	0.111	A
	Exit	1	1		1496			1496	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	937	933	1.005	931	12.6	13.8	0.851	F
			2	(A), B	316	931	0.339	314	0.7	0.8	0.123	A
		2	1	(A, B, C)	1330			1253	18.6	40.7	1.512	F
	Exit	1	1		1207			1207	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	511	604	0.846	514	6.0	6.3	0.739	E
	Exit	1	1		1022			1022	0.0	0.0	0.000	A

13:45 - 14:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
			1	B	876	1435	0.610	877	2.2	1.3	0.099	A

A - A256 North	Entry	1	2	A, C	741	1491	0.497	742	1.5	0.9	0.080	A
		2	1	(A, B, C)	1614			1616	3.9	0.5	0.025	A
	Exit	1	1		1352			1352	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	882	1002	0.880	904	13.8	7.7	0.689	E
			2	(A), B	279	994	0.281	280	0.8	0.5	0.107	A
		2	1	(A, B, C)	1076			1161	40.7	11.3	1.159	F
	Exit	1	1		996			996	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	418	648	0.645	424	6.3	2.2	0.435	D
	Exit	1	1		880			880	0.0	0.0	0.000	A

14:00 - 14:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	LOS
A - A256 North	Entry	1	1	B	733	1449	0.506	733	1.3	1.1	0.082	A
			2	A, C	621	1502	0.413	621	0.9	0.7	0.068	A
		2	1	(A, B, C)	1354			1354	0.5	0.1	0.006	A
	Exit	1	1		1069			1069	0.0	0.0	0.000	A
B - A526 South	Entry	1	1	A, C	730	1052	0.694	738	7.7	2.0	0.281	C
			2	(A), B	185	1050	0.176	185	0.5	0.2	0.076	A
		2	1	(A, B, C)	907			915	11.3	0.2	0.147	A
	Exit	1	1		831			831	0.0	0.0	0.000	A
C - Manston Rd West	Entry	1	1	A, C, B	348	773	0.450	349	2.2	0.9	0.185	B
	Exit	1	1		725			725	0.0	0.0	0.000	A

other - 2017 Baseline Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.36	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2017 Baseline Traffic	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
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1545	100.000
B - A526 South		ONE HOUR	✓	1132	100.000
C - Manston Rd West		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	145	861	539
B - A526 South	1068	0	64
C - Manston Rd West	260	72	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	5	0	9
C - Manston Rd West	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.54	0.04	1.2	A	1418	2127
B - A526 South	0.73	0.13	2.6	A	1039	1558
C - Manston Rd West	1.03	2.58	15.9	F	305	457

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 (min)	LOS
A - A256 North	1163	291	53	3152	0.369	1161	1103	0.0	0.6	0.030	A
B - A526 South	852	213	514	1892	0.451	849	700	0.0	0.8	0.057	A
C - Manston Rd West	250	62	910	527	0.475	246	453	0.0	0.9	0.212	B

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 (min)	LOS
A - A256 North	1389	347	64	3139	0.442	1388	1320	0.6	0.8	0.034	A
B - A526 South	1018	254	615	1817	0.560	1016	837	0.8	1.3	0.075	A
C - Manston Rd West	298	75	1089	454	0.657	295	542	0.9	1.8	0.368	C

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 (min)	LOS
A - A256 North	1701	425	72	3130	0.544	1700	1590	0.8	1.2	0.042	A
B - A526 South	1246	312	752	1715	0.727	1241	1019	1.3	2.6	0.125	A
C - Manston Rd West	366	91	1330	357	1.024	331	663	1.8	10.5	1.494	F

08:15 - 08:30

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	1701	425	75	3126	0.544	1701	1605	1.2	1.2	0.042	A
B - A526 South	1246	312	753	1715	0.727	1246	1023	2.6	2.6	0.128	A
C - Manston Rd West	366	91	1335	355	1.030	344	664	10.5	15.9	2.578	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 (min)	LOS
A - A256 North	1389	347	77	3124	0.445	1390	1372	1.2	0.8	0.035	A
B - A526 South	1018	254	616	1816	0.560	1023	852	2.6	1.3	0.076	A
C - Manston Rd West	298	75	1096	452	0.661	353	543	15.9	2.2	0.858	F

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 (min)	LOS
A - A256 North	1163	291	55	3149	0.369	1164	1115	0.8	0.6	0.030	A
B - A526 South	852	213	515	1890	0.451	854	704	1.3	0.8	0.058	A
C - Manston Rd West	250	62	915	524	0.477	255	454	2.2	0.9	0.226	B

other - 2017 Baseline Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2017 Baseline Traffic	PM	ONE HOUR	16:30	18:00	15	✓

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

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1654	100.000
B - A526 South		ONE HOUR	✓	1077	100.000
C - Manston Rd West		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	107	1037	510
B - A526 South	1026	0	51
C - Manston Rd West	219	78	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	1	2	1
B - A526 South	2	0	2
C - Manston Rd West	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.57	0.04	1.3	A	1518	2277
B - A526 South	0.65	0.09	1.8	A	988	1482
C - Manston Rd West	0.78	0.62	3.2	E	273	409

Main Results for each time segment

16:30 - 16:45

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 (min)	LOS
A - A256 North	1245	311	58	3229	0.386	1243	1013	0.0	0.6	0.030	A
B - A526 South	811	203	464	1993	0.407	808	837	0.0	0.7	0.051	A
C - Manston Rd West	224	56	850	584	0.383	221	421	0.0	0.6	0.164	A

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 (min)	LOS
A - A256 North	1487	372	70	3215	0.463	1486	1213	0.6	0.9	0.035	A
B - A526 South	968	242	554	1925	0.503	967	1001	0.7	1.0	0.063	A
C - Manston Rd West	267	67	1017	516	0.518	265	504	0.6	1.0	0.238	B

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 (min)	LOS
A - A256 North	1821	455	84	3198	0.569	1819	1480	0.9	1.3	0.043	A
B - A526 South	1186	296	679	1831	0.648	1183	1224	1.0	1.8	0.092	A
C - Manston Rd West	327	82	1244	423	0.774	319	617	1.0	2.9	0.545	D

17:15 - 17:30

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	1821	455	86	3196	0.570	1821	1488	1.3	1.3	0.044	A
B - A526 South	1186	296	679	1830	0.648	1186	1227	1.8	1.8	0.093	A
C - Manston Rd West	327	82	1247	421	0.776	326	618	2.9	3.2	0.616	E

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 (min)	LOS
A - A256 North	1487	372	72	3212	0.463	1489	1225	1.3	0.9	0.035	A
B - A526 South	968	242	555	1924	0.503	971	1006	1.8	1.0	0.063	A
C - Manston Rd West	267	67	1022	514	0.520	275	505	3.2	1.1	0.259	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 (min)	LOS
A - A256 North	1245	311	59	3227	0.386	1246	1021	0.9	0.6	0.030	A
B - A526 South	811	203	465	1992	0.407	812	841	1.0	0.7	0.051	A
C - Manston Rd West	224	56	854	583	0.384	226	423	1.1	0.6	0.169	B

other - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2017 Baseline Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓

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

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1350	100.000
B - A526 South		ONE HOUR	✓	782	100.000
C - Manston Rd West		ONE HOUR	✓	294	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	105	786	459
B - A526 South	726	0	56
C - Manston Rd West	235	59	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	6	2
B - A526 South	6	0	11
C - Manston Rd West	5	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.47	0.04	0.9	A	1239	1858
B - A526 South	0.48	0.06	0.9	A	718	1076
C - Manston Rd West	0.62	0.30	1.6	C	270	405

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1016	254	44	3159	0.322	1014	799	0.0	0.5	0.028	A
B - A526 South	589	147	424	1937	0.304	587	635	0.0	0.4	0.044	A
C - Manston Rd West	221	55	624	642	0.345	219	387	0.0	0.5	0.141	A

13:00 - 13:15

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 (min)	LOS
A - A256 North	1214	303	53	3148	0.386	1213	957	0.5	0.6	0.031	A
B - A526 South	703	176	507	1877	0.375	702	759	0.4	0.6	0.051	A
C - Manston Rd West	264	66	746	592	0.446	263	463	0.5	0.8	0.182	B

13:15 - 13:30

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 (min)	LOS
A - A256 North	1486	372	64	3134	0.474	1485	1170	0.6	0.9	0.036	A
B - A526 South	861	215	621	1793	0.480	860	929	0.6	0.9	0.064	A
C - Manston Rd West	324	81	914	524	0.618	321	567	0.8	1.5	0.291	C

13:30 - 13:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	1486	372	65	3133	0.474	1486	1174	0.9	0.9	0.036	A
B - A526 South	861	215	621	1793	0.480	861	930	0.9	0.9	0.064	A
C - Manston Rd West	324	81	915	523	0.618	324	567	1.5	1.6	0.300	C

13:45 - 14:00

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 (min)	LOS
A - A256 North	1214	303	54	3147	0.386	1215	962	0.9	0.6	0.031	A
B - A526 South	703	176	507	1876	0.375	704	761	0.9	0.6	0.051	A
C - Manston Rd West	264	66	748	591	0.447	267	463	1.6	0.8	0.187	B

14:00 - 14:15

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 (min)	LOS
A - A256 North	1016	254	45	3158	0.322	1017	804	0.6	0.5	0.028	A
B - A526 South	589	147	425	1936	0.304	589	637	0.6	0.4	0.045	A
C - Manston Rd West	221	55	626	641	0.345	223	388	0.8	0.5	0.144	A

other - 2039 Growthed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	3.23	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 Growthed Traffic	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)

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2128	532	50	3156	0.674	2128	1826	2.1	2.1	0.058	A
B - A526 South	1559	390	941	1575	0.990	1534	1237	17.5	23.9	0.933	F
C - Manston Rd West	458	115	1646	230	1.995	230	829	67.8	124.9	25.520	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 (min)	LOS
A - A256 North	1738	434	67	3135	0.554	1741	1687	2.1	1.3	0.043	A
B - A526 South	1273	318	770	1701	0.748	1356	1038	23.9	3.1	0.216	B
C - Manston Rd West	374	93	1442	312	1.200	312	684	124.9	140.5	22.826	F

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 (min)	LOS
A - A256 North	1455	364	92	3105	0.469	1457	1483	1.3	0.9	0.036	A
B - A526 South	1066	267	644	1794	0.594	1073	905	3.1	1.5	0.084	A
C - Manston Rd West	313	78	1148	430	0.728	427	569	140.5	112.0	17.749	F

other - 2039 Growthed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.05	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 Growthed Traffic	PM	ONE HOUR	16:30	18:00	15	✓

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

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2295	574	76	3208	0.715	2294	1784	2.5	2.5	0.066	A
B - A526 South	1494	374	855	1697	0.880	1492	1515	6.4	6.8	0.287	C
C - Manston Rd West	412	103	1571	289	1.426	288	777	33.9	64.7	9.367	F

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 (min)	LOS
A - A256 North	1873	468	103	3175	0.590	1878	1592	2.5	1.4	0.046	A
B - A526 South	1220	305	700	1815	0.672	1239	1281	6.8	2.1	0.107	A
C - Manston Rd West	336	84	1302	399	0.843	393	637	64.7	50.6	8.400	F

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 (min)	LOS
A - A256 North	1569	392	125	3149	0.498	1571	1430	1.4	1.0	0.038	A
B - A526 South	1022	255	586	1901	0.537	1025	1110	2.1	1.2	0.069	A
C - Manston Rd West	282	70	1079	491	0.574	476	532	50.6	2.0	3.382	F

other - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.48	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 Growthed Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓

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

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1822	100.000
B - A526 South		ONE HOUR	✓	1045	100.000
C - Manston Rd West		ONE HOUR	✓	393	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	609
B - A526 South	970	0	75
C - Manston Rd West	314	79	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	2
B - A526 South	6	0	11
C - Manston Rd West	5	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.65	0.05	1.8	A	1672	2508
B - A526 South	0.70	0.12	2.3	A	959	1438
C - Manston Rd West	1.09	3.37	25.6	F	361	541

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1372	343	59	3122	0.439	1369	1066	0.0	0.8	0.034	A
B - A526 South	787	197	563	1836	0.429	784	865	0.0	0.7	0.057	A
C - Manston Rd West	296	74	833	556	0.532	291	514	0.0	1.1	0.223	B

13:00 - 13:15

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 (min)	LOS
A - A256 North	1638	409	70	3108	0.527	1637	1275	0.8	1.1	0.041	A
B - A526 South	939	235	673	1755	0.535	938	1034	0.7	1.1	0.073	A
C - Manston Rd West	353	88	996	489	0.722	348	614	1.1	2.4	0.411	C

13:15 - 13:30

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 (min)	LOS
A - A256 North	2006	502	77	3100	0.647	2003	1522	1.1	1.8	0.055	A
B - A526 South	1151	288	824	1645	0.699	1146	1256	1.1	2.3	0.119	A
C - Manston Rd West	433	108	1218	399	1.084	381	752	2.4	15.4	1.775	F

13:30 - 13:45

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 (min)	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2006	502	79	3097	0.648	2006	1535	1.8	1.8	0.055	A
B - A526 South	1151	288	825	1644	0.700	1150	1260	2.3	2.3	0.121	A
C - Manston Rd West	433	108	1222	397	1.089	392	753	15.4	25.6	3.369	F

13:45 - 14:00

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 (min)	LOS
A - A256 North	1638	409	89	3085	0.531	1641	1356	1.8	1.1	0.042	A
B - A526 South	939	235	674	1754	0.536	944	1055	2.3	1.2	0.074	A
C - Manston Rd West	353	88	1002	487	0.726	442	616	25.6	3.3	1.746	F

14:00 - 14:15

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 (min)	LOS
A - A256 North	1372	343	61	3119	0.440	1373	1080	1.1	0.8	0.034	A
B - A526 South	787	197	564	1834	0.429	788	870	1.2	0.8	0.057	A
C - Manston Rd West	296	74	837	554	0.534	304	516	3.3	1.2	0.248	B

other - 2039 + Dev Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	4.40	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-32	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 + Dev Traffic	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)

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)		
A - A256 North	2201	550	73	3131		0.703	2201	1711	2.3	2.4	0.065	A
B - A526 South	1741	435	1014	1530		1.138	1528	1260	61.2	114.3	3.505	F
C - Manston Rd West	492	123	1491	293		1.679	293	1052	67.9	117.6	19.838	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 (min)	LOS
A - A256 North	1797	449	66	3139	0.573	1801	1758	2.4	1.3	0.045	A
B - A526 South	1421	355	830	1667	0.853	1652	1038	114.3	56.5	3.122	F
C - Manston Rd West	402	100	1559	265	1.516	265	923	117.6	151.9	26.653	F

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 (min)	LOS
A - A256 North	1505	376	89	3112	0.484	1507	1594	1.3	0.9	0.037	A
B - A526 South	1190	298	694	1767	0.673	1408	902	56.5	2.1	0.314	C
C - Manston Rd West	337	84	1326	359	0.937	357	776	151.9	146.8	25.105	F

other - 2039 + Dev Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	6.15	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-37	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 + Dev Traffic	PM	ONE HOUR	16:30	18:00	15	✓

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

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2303	576	131	3145	0.732	2303	1730	2.7	2.7	0.071	A
B - A526 South	1521	380	864	1691	0.899	1518	1570	7.4	8.1	0.336	C
C - Manston Rd West	685	171	1570	291	2.356	291	812	142.2	240.8	39.778	F

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 (min)	LOS
A - A256 North	1881	470	180	3088	0.609	1885	1525	2.7	1.6	0.050	A
B - A526 South	1241	310	707	1809	0.686	1265	1358	8.1	2.2	0.115	A
C - Manston Rd West	559	140	1306	399	1.400	399	666	240.8	280.7	34.729	F

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 (min)	LOS
A - A256 North	1575	394	221	3039	0.518	1577	1349	1.6	1.1	0.041	A
B - A526 South	1040	260	592	1896	0.548	1044	1206	2.2	1.2	0.071	A
C - Manston Rd West	468	117	1079	493	0.950	491	556	280.7	275.0	33.940	F

other - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	1.02	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 + Dev Traffic	Airport Peak	ONE HOUR	12:45	14:15	15	✓

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

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1894	100.000
B - A526 South		ONE HOUR	✓	1240	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	1073	681
B - A526 South	970	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	7	1
B - A526 South	6	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.68	0.06	2.1	A	1738	2607
B - A526 South	0.85	0.24	5.4	B	1138	1707
C - Manston Rd West	1.28	6.98	61.8	F	429	643

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1426	356	97	3094	0.461	1422	1080	0.0	0.9	0.036	A
B - A526 South	934	233	617	1817	0.514	929	903	0.0	1.0	0.067	A
C - Manston Rd West	352	88	832	560	0.627	345	714	0.0	1.6	0.271	C

13:00 - 13:15

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 (min)	LOS
A - A256 North	1703	426	115	3073	0.554	1701	1289	0.9	1.2	0.044	A
B - A526 South	1115	279	737	1729	0.645	1112	1078	1.0	1.8	0.097	A
C - Manston Rd West	420	105	995	493	0.851	408	854	1.6	4.5	0.635	E

13:15 - 13:30

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 (min)	LOS
A - A256 North	2085	521	112	3076	0.678	2082	1499	1.2	2.1	0.060	A
B - A526 South	1365	341	902	1608	0.849	1352	1291	1.8	5.1	0.223	B
C - Manston Rd West	514	129	1211	405	1.270	399	1043	4.5	33.2	3.192	F

13:30 - 13:45

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 (min)	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2085	521	112	3075	0.678	2085	1509	2.1	2.1	0.061	A
B - A526 South	1365	341	904	1607	0.850	1364	1294	5.1	5.4	0.245	B
C - Manston Rd West	514	129	1221	401	1.283	400	1047	33.2	61.8	6.985	F

13:45 - 14:00

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 (min)	LOS
A - A256 North	1703	426	135	3049	0.558	1706	1354	2.1	1.3	0.045	A
B - A526 South	1115	279	739	1727	0.645	1129	1101	5.4	1.9	0.102	A
C - Manston Rd West	420	105	1009	488	0.861	480	859	61.8	46.8	6.653	F

14:00 - 14:15

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 (min)	LOS
A - A256 North	1426	356	149	3032	0.470	1427	1219	1.3	0.9	0.037	A
B - A526 South	934	233	619	1816	0.514	937	957	1.9	1.1	0.069	A
C - Manston Rd West	352	88	838	558	0.630	530	717	46.8	2.2	2.665	F

other - 2039 B+Dev Net Change, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	3.40	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 B+Dev Net Change	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
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1876	100.000
B - A526 South		ONE HOUR	✓	1499	100.000
C - Manston Rd West		ONE HOUR	✓	447	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	181	955	740
B - A526 South	1254	0	245
C - Manston Rd West	335	112	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	2
B - A526 South	4	0	3
C - Manston Rd West	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.66	0.06	1.9	A	1721	2582
B - A526 South	1.07	2.15	66.3	F	1376	2063
C - Manston Rd West	1.64	21.23	133.5	F	410	615

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 (min)	LOS
A - A256 North	1412	353	82	3140	0.450	1409	1319	0.0	0.8	0.035	A
B - A526 South	1129	282	692	1784	0.633	1122	799	0.0	1.7	0.090	A
C - Manston Rd West	337	84	1074	465	0.724	327	739	0.0	2.4	0.411	C

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 (min)	LOS
A - A256 North	1686	422	90	3130	0.539	1685	1553	0.8	1.2	0.041	A
B - A526 South	1348	337	827	1682	0.801	1339	948	1.7	3.8	0.171	B
C - Manston Rd West	402	100	1283	381	1.053	360	884	2.4	12.8	1.683	F

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 (min)	LOS
A - A256 North	2066	516	77	3145	0.657	2063	1696	1.2	1.9	0.055	A
B - A526 South	1650	413	1013	1544	1.069	1514	1127	3.8	37.9	0.998	F
C - Manston Rd West	492	123	1466	308	1.596	308	1061	12.8	59.0	7.436	F

08:15 - 08:30

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)		
A - A256 North	2066	516	75	3147		0.656	2065	1710	1.9	1.9	0.055	A
B - A526 South	1650	413	1014	1542		1.070	1537	1127	37.9	66.3	2.155	F
C - Manston Rd West	492	123	1485	301		1.637	300	1066	59.0	106.9	16.652	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 (min)	LOS
A - A256 North	1686	422	74	3149	0.536	1689	1718	1.9	1.2	0.041	A
B - A526 South	1348	337	829	1681	0.802	1594	934	66.3	4.8	1.151	F
C - Manston Rd West	402	100	1496	296	1.359	296	927	106.9	133.5	21.233	F

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 (min)	LOS
A - A256 North	1412	353	114	3101	0.455	1414	1432	1.2	0.8	0.036	A
B - A526 South	1129	282	694	1782	0.633	1141	834	4.8	1.8	0.095	A
C - Manston Rd West	337	84	1091	459	0.734	455	744	133.5	103.8	15.666	F

other - 2039 B+Dev Net Change, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	4.49	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-34	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 B+Dev Net Change	PM	ONE HOUR	16:30	18:00	15	✓

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

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	2180	545	157	3115	0.700	2180	1622	2.3	2.3	0.064	A
B - A526 South	1380	345	864	1691	0.816	1379	1472	4.1	4.3	0.192	B
C - Manston Rd West	685	171	1431	348	1.968	348	813	115.6	199.8	27.407	F

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 (min)	LOS
A - A256 North	1780	445	203	3061	0.582	1784	1427	2.3	1.4	0.047	A
B - A526 South	1126	282	707	1809	0.623	1137	1280	4.3	1.7	0.091	A
C - Manston Rd West	559	140	1179	452	1.237	452	665	199.8	226.6	26.422	F

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 (min)	LOS
A - A256 North	1491	373	239	3019	0.494	1492	1273	1.4	1.0	0.039	A
B - A526 South	943	236	592	1897	0.497	946	1140	1.7	1.0	0.063	A
C - Manston Rd West	468	117	981	533	0.878	531	556	226.6	211.0	24.733	F

other - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A526 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	other	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
20B	A256 - Manston Rd West	Standard Roundabout	A, B, C	0.88	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-20	C - Manston Rd West

Arms

Arms

Arm	Name	Description
A	A256 North	
B	A526 South	
C	Manston Rd 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 - A256 North	6.13	7.27	7.1	100.0	33.8	57.0	
B - A526 South	4.30	9.72	83.4	29.8	33.8	25.5	
C - Manston Rd West	3.57	4.97	7.7	19.5	33.8	29.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A256 North	0.692	1971
B - A526 South	0.876	2747
C - Manston Rd West	0.584	1353

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A - A256 North	Percentage		170.00
B - A526 South	Percentage		87.00
C - Manston Rd West	Percentage		70.00

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	2039 B+Dev Net Change	Airport Peak	ONE HOUR	12:45	14:15	15	✓

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

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A256 North		ONE HOUR	✓	1791	100.000
B - A526 South		ONE HOUR	✓	1203	100.000
C - Manston Rd West		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	140	970	681
B - A526 South	933	0	270
C - Manston Rd West	336	131	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A256 North	B - A526 South	C - Manston Rd West
A - A256 North	2	5	1
B - A526 South	5	0	3
C - Manston Rd West	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A256 North	0.64	0.05	1.7	A	1643	2465
B - A526 South	0.82	0.20	4.3	B	1104	1656
C - Manston Rd West	1.22	5.74	51.8	F	429	643

Main Results for each time segment

12:45 - 13:00

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 (min)	LOS
A - A256 North	1348	337	97	3130	0.431	1345	1053	0.0	0.8	0.034	A
B - A526 South	906	226	617	1831	0.495	902	826	0.0	1.0	0.064	A
C - Manston Rd West	352	88	805	575	0.612	346	714	0.0	1.5	0.256	C

13:00 - 13:15

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 (min)	LOS
A - A256 North	1610	403	115	3108	0.518	1609	1258	0.8	1.1	0.040	A
B - A526 South	1081	270	737	1742	0.621	1079	986	1.0	1.6	0.090	A
C - Manston Rd West	420	105	963	510	0.823	410	854	1.5	3.9	0.555	D

13:15 - 13:30

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 (min)	LOS
A - A256 North	1972	493	117	3106	0.635	1969	1473	1.1	1.7	0.053	A
B - A526 South	1325	331	903	1620	0.818	1314	1183	1.6	4.2	0.190	B
C - Manston Rd West	514	129	1173	425	1.211	416	1044	3.9	28.3	2.672	F

13:30 - 13:45

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 (min)	LOS
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	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(min)	
A - A256 North	1972	493	118	3105	0.635	1972	1483	1.7	1.7	0.053	A
B - A526 South	1325	331	904	1619	0.818	1324	1186	4.2	4.3	0.202	B
C - Manston Rd West	514	129	1181	421	1.220	420	1047	28.3	51.8	5.736	F

13:45 - 14:00

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 (min)	LOS
A - A256 North	1610	403	139	3080	0.523	1613	1330	1.7	1.1	0.041	A
B - A526 South	1081	270	739	1741	0.621	1092	1013	4.3	1.7	0.094	A
C - Manston Rd West	420	105	973	506	0.830	496	858	51.8	32.7	5.088	F

14:00 - 14:15

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 (min)	LOS
A - A256 North	1348	337	133	3087	0.437	1350	1152	1.1	0.8	0.035	A
B - A526 South	906	226	619	1830	0.495	908	864	1.7	1.0	0.065	A
C - Manston Rd West	352	88	810	572	0.614	475	717	32.7	1.7	1.263	F

