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REDWOOD PARTNERSHIP
Consulting Engineers
Transportation Planners



MIXED-USE DEVELOPMENT
A259 NEW ROAD
RUSTINGTON
WEST SUSSEX

SUPPLEMENTARY TRANSPORT REPORT

VOLUME 3 OF 3

On behalf of
COMMERCIAL DEVELOPMENT PROJECTS LIMITED
&
MARKS AND SPENCERS PLC

PMcL/3167d2/Jul 2015

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VOLUME 3

APPENDIX E (PART)

ARCADY computer outputs

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A204 Saturday do nothing + committed development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:15:24

» Year 2020 Saturday Peak Hour + committed development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour + committed development				
Arm A	2.03	50.78	0.71	F	-3 % [Arm A]
Arm B	3.10	5.40	0.76	A	
Arm C	2.35	9.27	0.71	A	
Arm D	1.15	3.42	0.54	A	

Values shown are the maximum values 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.

"D1 - Year 2020 Saturday Peak Hour + committed development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:15:20

File summary

Title	3167A204 Saturday existing traffic + committed development 2020
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour + committed development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2020 Saturday Peak Hour + committed development, AM	Year 2020 Saturday Peak Hour + committed development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				7.29	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-3	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.33	100.000
B	ONE HOUR	✓	31.28	100.000
C	ONE HOUR	✓	13.92	100.000
D	ONE HOUR	✓	18.07	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.150	0.717	0.467
	B	0.733	1.200	10.883	18.467
	C	0.133	12.050	0.000	1.733
	D	0.383	15.183	1.000	1.500

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.35	0.59
	C	0.01	0.87	0.00	0.12
	D	0.02	0.84	0.06	0.08

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.71	50.78	2.03	F	2.14	193.00	67.40	20.95	0.75	67.41	20.96
B	0.76	5.40	3.10	A	28.75	2587.63	158.78	3.68	1.76	158.79	3.68
C	0.71	9.27	2.35	A	12.79	1151.13	109.82	5.72	1.22	109.83	5.72
D	0.54	3.42	1.15	A	16.60	1494.40	66.79	2.68	0.74	66.79	2.68

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.72	0.94	23.22	0.00	9.02	0.00	0.196	0.00	0.24	8.223	A
B	23.69	118.44	23.49	22.19	2.75	0.00	47.55	45.83	0.498	0.00	0.98	2.474	A
C	10.54	52.69	10.42	9.45	16.79	0.00	27.66	17.30	0.381	0.00	0.60	3.456	A
D	13.68	68.40	13.58	16.64	10.57	0.00	42.18	36.46	0.324	0.00	0.48	2.092	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.77	0.95	23.42	0.00	8.93	0.00	0.198	0.24	0.24	8.376	A
B	23.69	118.44	23.69	22.40	2.79	0.00	47.53	45.83	0.498	0.98	0.99	2.516	A
C	10.54	52.69	10.54	9.54	16.93	0.00	27.57	17.30	0.382	0.60	0.61	3.522	A
D	13.68	68.40	13.68	16.78	10.69	0.00	42.09	36.46	0.325	0.48	0.48	2.111	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.77	0.95	23.42	0.00	8.93	0.00	0.198	0.24	0.24	8.380	A
B	23.69	118.44	23.69	22.40	2.79	0.00	47.53	45.83	0.498	0.99	0.99	2.516	A
C	10.54	52.69	10.54	9.54	16.94	0.00	27.57	17.30	0.382	0.61	0.61	3.522	A
D	13.68	68.40	13.68	16.78	10.69	0.00	42.09	36.46	0.325	0.48	0.48	2.111	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.42	1.88	1.01	24.96	0.00	8.23	0.00	0.229	0.24	0.29	9.438	A
B	25.27	126.36	25.25	23.87	2.97	0.00	47.39	45.83	0.533	0.99	1.12	2.705	A
C	11.24	56.21	11.22	10.17	18.05	0.00	26.85	17.30	0.419	0.61	0.71	3.834	A
D	14.60	72.98	14.58	17.89	11.39	0.00	41.55	36.46	0.351	0.48	0.54	2.224	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.11	10.55	2.08	1.13	27.90	0.00	6.91	0.00	0.305	0.29	0.42	12.360	B
B	28.29	141.43	28.22	26.67	3.31	0.00	47.13	45.83	0.600	1.12	1.47	3.160	A
C	12.58	62.91	12.53	11.36	20.17	0.00	25.49	17.30	0.494	0.71	0.95	4.617	A
D	16.34	81.68	16.31	19.99	12.72	0.00	40.52	36.46	0.403	0.54	0.67	2.476	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.31	11.54	2.27	1.23	30.52	0.00	5.73	0.00	0.403	0.42	0.62	17.104	C
B	30.95	154.76	30.87	29.17	3.62	0.00	46.90	45.83	0.660	1.47	1.88	3.720	A
C	13.77	68.85	13.71	12.42	22.07	0.00	24.27	17.30	0.567	0.95	1.26	5.607	A
D	17.88	89.38	17.85	21.86	13.91	0.00	39.60	36.46	0.451	0.67	0.81	2.754	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.35	2.41	1.32	32.65	0.00	4.77	0.00	0.518	0.62	0.94	24.637	C
B	33.12	165.58	33.03	31.19	3.86	0.00	46.72	45.83	0.709	1.88	2.33	4.347	A
C	14.73	73.66	14.66	13.29	23.60	0.00	23.28	17.30	0.633	1.26	1.63	6.885	A
D	19.13	95.63	19.10	23.39	14.87	0.00	38.86	36.46	0.492	0.81	0.95	3.036	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.58	12.92	2.50	1.38	34.16	0.00	4.09	0.00	0.632	0.94	1.38	35.403	E
B	34.64	173.21	34.56	32.63	4.03	0.00	46.59	45.83	0.744	2.33	2.76	4.939	A
C	15.41	77.05	15.34	13.89	24.69	0.00	22.58	17.30	0.682	1.63	2.01	8.168	A
D	20.01	100.03	19.98	24.47	15.56	0.00	38.33	36.46	0.522	0.95	1.07	3.266	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.64	13.21	2.55	1.41	34.97	0.00	3.73	0.00	0.709	1.38	1.83	44.606	E
B	35.43	177.16	35.38	33.40	4.12	0.00	46.52	45.83	0.762	2.76	3.04	5.338	A
C	15.76	78.81	15.71	14.22	25.28	0.00	22.21	17.30	0.710	2.01	2.28	9.108	A
D	20.46	102.31	20.45	25.05	15.94	0.00	38.04	36.46	0.538	1.07	1.14	3.407	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.64	13.21	2.60	1.42	35.02	0.00	3.70	0.00	0.714	1.83	2.03	50.778	F
B	35.43	177.16	35.42	33.47	4.15	0.00	46.50	45.83	0.762	3.04	3.10	5.395	A
C	15.76	78.81	15.75	14.25	25.32	0.00	22.18	17.30	0.711	2.28	2.35	9.266	A
D	20.46	102.31	20.46	25.09	15.98	0.00	38.01	36.46	0.538	1.14	1.15	3.418	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.58	12.92	2.60	1.39	34.28	0.00	4.04	0.00	0.640	2.03	1.96	42.808	E
B	34.64	173.21	34.66	32.79	4.09	0.00	46.55	45.83	0.744	3.10	3.01	5.070	A
C	15.41	77.05	15.43	13.96	24.78	0.00	22.52	17.30	0.684	2.35	2.26	8.511	A
D	20.01	100.03	20.01	24.56	15.65	0.00	38.26	36.46	0.523	1.15	1.11	3.292	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.35	2.61	1.33	32.85	0.00	4.68	0.00	0.528	1.96	1.28	30.359	D
B	33.12	165.58	33.21	31.48	3.97	0.00	46.63	45.83	0.710	3.01	2.55	4.505	A
C	14.73	73.66	14.82	13.41	23.77	0.00	23.18	17.30	0.636	2.26	1.84	7.263	A
D	19.13	95.63	19.15	23.56	15.02	0.00	38.74	36.46	0.494	1.11	0.99	3.066	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.31	11.54	2.41	1.24	30.72	0.00	5.64	0.00	0.409	1.28	0.75	19.118	C
B	30.95	154.76	31.06	29.43	3.70	0.00	46.84	45.83	0.661	2.55	2.01	3.833	A
C	13.77	68.85	13.86	12.54	22.22	0.00	24.17	17.30	0.570	1.84	1.38	5.877	A
D	17.88	89.38	17.91	22.03	14.05	0.00	39.49	36.46	0.453	0.99	0.84	2.783	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.11	10.55	2.17	1.13	28.07	0.00	6.83	0.00	0.309	0.75	0.47	13.001	B
B	28.29	141.43	28.38	26.87	3.36	0.00	47.09	45.83	0.601	2.01	1.54	3.222	A
C	12.58	62.91	12.66	11.44	20.30	0.00	25.41	17.30	0.495	1.38	1.01	4.735	A
D	16.34	81.68	16.37	20.12	12.83	0.00	40.43	36.46	0.404	0.84	0.69	2.498	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.42	1.92	1.01	25.07	0.00	8.19	0.00	0.230	0.47	0.31	9.620	A
B	25.27	126.36	25.35	23.99	3.00	0.00	47.37	45.83	0.534	1.54	1.16	2.735	A
C	11.24	56.21	11.30	10.22	18.13	0.00	26.80	17.30	0.419	1.01	0.74	3.883	A
D	14.60	72.98	14.62	17.97	11.46	0.00	41.49	36.46	0.352	0.69	0.55	2.234	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.78	0.95	23.45	0.00	8.91	0.00	0.198	0.31	0.25	8.426	A
B	23.69	118.44	23.72	22.44	2.80	0.00	47.52	45.83	0.498	1.16	1.01	2.526	A
C	10.54	52.69	10.56	9.56	16.96	0.00	27.55	17.30	0.382	0.74	0.63	3.535	A
D	13.68	68.40	13.69	16.81	10.71	0.00	42.07	36.46	0.325	0.55	0.49	2.115	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.77	0.95	23.42	0.00	8.92	0.00	0.198	0.25	0.25	8.385	A
B	23.69	118.44	23.69	22.40	2.79	0.00	47.52	45.83	0.498	1.01	1.00	2.519	A
C	10.54	52.69	10.54	9.54	16.94	0.00	27.57	17.30	0.382	0.63	0.62	3.523	A
D	13.68	68.40	13.68	16.79	10.69	0.00	42.08	36.46	0.325	0.49	0.48	2.112	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.77	8.83	1.77	0.95	23.42	0.00	8.93	0.00	0.198	0.25	0.25	8.385	A
B	23.69	118.44	23.69	22.40	2.79	0.00	47.52	45.83	0.498	1.00	1.00	2.516	A
C	10.54	52.69	10.54	9.54	16.94	0.00	27.57	17.30	0.382	0.62	0.62	3.525	A
D	13.68	68.40	13.68	16.78	10.69	0.00	42.08	36.46	0.325	0.48	0.48	2.113	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.08	0.22	8.223	A	A
B	4.64	0.93	2.474	A	A
C	2.86	0.57	3.456	A	A
D	2.29	0.46	2.092	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.20	0.24	8.376	A	A
B	4.91	0.98	2.516	A	A
C	3.05	0.61	3.522	A	A
D	2.39	0.48	2.111	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.21	0.24	8.380	A	A
B	4.93	0.99	2.516	A	A
C	3.07	0.61	3.522	A	A
D	2.40	0.48	2.111	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.38	0.28	9.438	A	A
B	5.48	1.10	2.705	A	A
C	3.44	0.69	3.834	A	A
D	2.63	0.53	2.224	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.95	0.39	12.360	B	B
B	7.04	1.41	3.160	A	A
C	4.53	0.91	4.617	A	A
D	3.25	0.65	2.476	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.86	0.57	17.104	C	B
B	8.98	1.80	3.720	A	A
C	5.99	1.20	5.607	A	A
D	3.94	0.79	2.754	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.23	0.85	24.637	C	C
B	11.13	2.23	4.347	A	A
C	7.72	1.54	6.885	A	A
D	4.63	0.93	3.036	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.13	1.23	35.403	E	D
B	13.20	2.64	4.939	A	A
C	9.52	1.90	8.168	A	A
D	5.22	1.04	3.266	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.26	1.65	46.605	E	D
B	14.73	2.95	5.338	A	A
C	10.96	2.19	9.108	A	A
D	5.61	1.12	3.407	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.70	1.94	50.778	F	D
B	15.39	3.08	5.395	A	A
C	11.62	2.32	9.266	A	A
D	5.74	1.15	3.418	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.94	1.99	42.908	E	D
B	15.22	3.04	5.070	A	A
C	11.48	2.30	8.511	A	A
D	5.63	1.13	3.292	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.19	1.44	30.359	D	C
B	13.30	2.66	4.505	A	A
C	9.68	1.94	7.263	A	A
D	5.08	1.02	3.066	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.21	0.84	19.118	C	B
B	10.54	2.11	3.833	A	A
C	7.28	1.46	5.877	A	A
D	4.31	0.86	2.783	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.57	0.51	13.001	B	B
B	8.04	1.61	3.222	A	A
C	5.30	1.06	4.735	A	A
D	3.53	0.71	2.498	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.66	0.33	9.620	A	A
B	6.04	1.21	2.735	A	A
C	3.85	0.77	3.883	A	A
D	2.81	0.56	2.234	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.33	0.27	8.426	A	A
B	5.17	1.03	2.526	A	A
C	3.24	0.65	3.535	A	A
D	2.48	0.50	2.115	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.26	0.25	8.385	A	A
B	5.02	1.00	2.519	A	A
C	3.13	0.63	3.523	A	A
D	2.43	0.49	2.112	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.25	0.25	8.385	A	A
B	5.00	1.00	2.516	A	A
C	3.12	0.62	3.525	A	A
D	2.42	0.48	2.113	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A205 Friday PM total traffic with development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:32:12

» Year 2016 Friday PM Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday PM Peak Hour with development				
Arm A	0.39	19.00	0.29	C	9 % [Arm A]
Arm B	4.48	7.30	0.83	A	
Arm C	1.46	7.12	0.60	A	
Arm D	1.20	3.26	0.55	A	

Values shown are the maximum values 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.

"D1 - Year 2016 Friday PM Peak Hour with development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:32:08

File summary

Title	3167A205 Year 2016, Friday PM Total traffic + development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday PM Peak Hour with development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2016 Friday PM Peak Hour with development, AM	Year 2016 Friday PM Peak Hour with development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				6.26	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	9	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.12	100.000
B	ONE HOUR	✓	33.78	100.000
C	ONE HOUR	✓	11.10	100.000
D	ONE HOUR	✓	19.62	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.533	0.100	0.483
	B	0.800	1.000	12.017	19.967
	C	0.150	9.117	0.067	1.767
	D	0.267	16.167	1.400	1.783

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.48	0.09	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.82	0.01	0.16
	D	0.01	0.82	0.07	0.09

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.29	19.00	0.39	A	1.03	92.37	17.79	11.56	0.20	17.79	11.56
B	0.83	7.30	4.48	A	31.05	2794.42	208.78	4.48	2.32	208.79	4.48
C	0.60	7.12	1.46	A	10.20	918.15	73.87	4.83	0.82	73.87	4.83
D	0.55	3.26	1.20	A	18.03	1622.61	70.11	2.59	0.78	70.12	2.59

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.83	0.91	22.18	0.00	9.48	0.00	0.089	0.00	0.10	6.917	A
B	25.58	127.90	25.35	20.13	2.88	0.00	47.46	45.02	0.539	0.00	1.15	2.688	A
C	8.40	42.02	8.32	10.19	18.03	0.00	26.86	17.65	0.313	0.00	0.45	3.215	A
D	14.85	74.27	14.75	18.01	8.34	0.00	43.89	37.04	0.338	0.00	0.51	2.052	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.36	0.00	9.40	0.00	0.090	0.10	0.10	7.010	A
B	25.58	127.90	25.58	20.30	2.90	0.00	47.44	45.02	0.539	1.15	1.16	2.744	A
C	8.40	42.02	8.40	10.28	18.20	0.00	26.76	17.65	0.314	0.45	0.45	3.268	A
D	14.85	74.27	14.85	18.17	8.43	0.00	43.83	37.04	0.339	0.51	0.51	2.070	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.36	0.00	9.40	0.00	0.090	0.10	0.10	7.010	A
B	25.58	127.90	25.58	20.30	2.90	0.00	47.44	45.02	0.539	1.16	1.16	2.744	A
C	8.40	42.02	8.40	10.28	18.20	0.00	26.76	17.65	0.314	0.45	0.46	3.268	A
D	14.85	74.27	14.85	18.17	8.43	0.00	43.83	37.04	0.339	0.51	0.51	2.070	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.90	0.98	23.84	0.00	8.74	0.00	0.103	0.10	0.11	7.647	A
B	27.29	136.46	27.26	21.64	3.09	0.00	47.30	45.02	0.577	1.16	1.34	2.989	A
C	8.97	44.84	8.95	10.96	19.39	0.00	25.99	17.65	0.345	0.46	0.52	3.517	A
D	15.85	79.24	15.84	19.36	8.98	0.00	43.40	37.04	0.365	0.51	0.57	2.175	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.00	1.10	26.65	0.00	7.47	0.00	0.135	0.11	0.15	9.260	A
B	30.55	152.73	30.45	24.19	3.46	0.00	47.02	45.02	0.650	1.34	1.80	3.600	A
C	10.04	50.18	10.00	12.25	21.66	0.00	24.53	17.65	0.409	0.52	0.68	4.122	A
D	17.74	88.68	17.71	21.63	10.03	0.00	42.59	37.04	0.416	0.57	0.70	2.410	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.09	1.20	29.16	0.00	6.34	0.00	0.174	0.15	0.20	11.405	B
B	33.43	167.13	33.31	26.47	3.78	0.00	46.78	45.02	0.715	1.80	2.39	4.409	A
C	10.98	54.91	10.94	13.39	23.70	0.00	23.22	17.65	0.473	0.68	0.87	4.868	A
D	19.41	97.05	19.38	23.66	10.98	0.00	41.86	37.04	0.464	0.70	0.85	2.665	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.17	1.28	31.20	0.00	5.43	0.00	0.218	0.20	0.26	14.006	B
B	35.76	178.81	35.62	28.32	4.05	0.00	46.58	45.02	0.768	2.39	3.10	5.391	A
C	11.75	58.75	11.71	14.33	25.34	0.00	22.16	17.65	0.530	0.87	1.09	5.709	A
D	20.77	103.83	20.74	25.31	11.74	0.00	41.27	37.04	0.503	0.85	0.99	2.918	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.22	1.34	32.64	0.00	4.77	0.00	0.259	0.26	0.33	16.818	C
B	37.41	187.05	37.27	29.63	4.23	0.00	46.44	45.02	0.806	3.10	3.82	6.405	A
C	12.29	61.46	12.25	14.99	26.51	0.00	21.41	17.65	0.574	1.09	1.29	6.510	A
D	21.72	108.61	21.70	26.48	12.29	0.00	40.85	37.04	0.532	0.99	1.11	3.128	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.37	33.41	0.00	4.43	0.00	0.286	0.33	0.38	18.818	C
B	38.26	191.31	38.16	30.33	4.33	0.00	46.36	45.02	0.825	3.82	4.34	7.159	A
C	12.57	62.86	12.54	15.35	27.15	0.00	21.00	17.65	0.599	1.29	1.43	7.056	A
D	22.22	111.09	22.20	27.11	12.58	0.00	40.63	37.04	0.547	1.11	1.18	3.253	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.38	33.44	0.00	4.41	0.00	0.287	0.38	0.39	19.001	C
B	38.26	191.31	38.23	30.36	4.34	0.00	46.36	45.02	0.825	4.34	4.48	7.305	A
C	12.57	62.86	12.57	15.37	27.20	0.00	20.97	17.65	0.600	1.43	1.46	7.124	A
D	22.22	111.09	22.22	27.16	12.60	0.00	40.61	37.04	0.547	1.18	1.20	3.261	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.24	1.35	32.72	0.00	4.74	0.00	0.261	0.39	0.37	17.191	C
B	37.41	187.05	37.44	29.71	4.25	0.00	46.43	45.02	0.806	4.48	4.35	6.738	A
C	12.29	61.46	12.30	15.05	26.63	0.00	21.33	17.65	0.576	1.46	1.40	6.661	A
D	21.72	108.61	21.73	26.60	12.34	0.00	40.81	37.04	0.532	1.20	1.16	3.146	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.20	1.29	31.33	0.00	5.37	0.00	0.220	0.37	0.30	14.445	B
B	35.76	178.81	35.93	28.46	4.07	0.00	46.56	45.02	0.768	4.35	3.52	5.744	A
C	11.75	58.75	11.79	14.44	25.56	0.00	22.03	17.65	0.533	1.40	1.18	5.892	A
D	20.77	103.83	20.79	25.52	11.83	0.00	41.20	37.04	0.504	1.16	1.03	2.945	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.12	1.21	29.30	0.00	6.28	0.00	0.176	0.30	0.22	11.663	B
B	33.43	167.13	33.61	26.61	3.81	0.00	46.76	45.02	0.715	3.52	2.62	4.628	A
C	10.98	54.91	11.03	13.51	23.90	0.00	23.09	17.65	0.476	1.18	0.93	4.998	A
D	19.41	97.05	19.44	23.87	11.07	0.00	41.79	37.04	0.464	1.03	0.88	2.689	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.02	1.10	26.77	0.00	7.42	0.00	0.136	0.22	0.16	9.402	A
B	30.55	152.73	30.69	24.32	3.48	0.00	47.01	45.02	0.650	2.62	1.91	3.711	A
C	10.04	50.18	10.08	12.34	21.83	0.00	24.42	17.65	0.411	0.93	0.71	4.196	A
D	17.74	88.68	17.77	21.80	10.11	0.00	42.53	37.04	0.417	0.88	0.72	2.427	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.91	0.99	23.92	0.00	8.70	0.00	0.104	0.16	0.12	7.711	A
B	27.29	136.46	27.40	21.72	3.11	0.00	47.29	45.02	0.577	1.91	1.40	3.034	A
C	8.97	44.84	9.00	11.01	19.49	0.00	25.93	17.65	0.346	0.71	0.54	3.552	A
D	15.85	79.24	15.88	19.46	9.03	0.00	43.36	37.04	0.365	0.72	0.58	2.186	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.39	0.00	9.39	0.00	0.090	0.12	0.10	7.026	A
B	25.58	127.90	25.62	20.33	2.91	0.00	47.44	45.02	0.539	1.40	1.19	2.755	A
C	8.40	42.02	8.42	10.30	18.23	0.00	26.74	17.65	0.314	0.54	0.47	3.280	A
D	14.85	74.27	14.87	18.20	8.44	0.00	43.82	37.04	0.339	0.58	0.52	2.073	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.36	0.00	9.40	0.00	0.090	0.10	0.10	7.014	A
B	25.58	127.90	25.58	20.31	2.90	0.00	47.44	45.02	0.539	1.19	1.18	2.745	A
C	8.40	42.02	8.41	10.29	18.20	0.00	26.75	17.65	0.314	0.47	0.46	3.272	A
D	14.85	74.27	14.85	18.17	8.43	0.00	43.83	37.04	0.339	0.52	0.52	2.070	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.36	0.00	9.40	0.00	0.090	0.10	0.10	7.014	A
B	25.58	127.90	25.58	20.31	2.90	0.00	47.44	45.02	0.539	1.18	1.18	2.744	A
C	8.40	42.02	8.41	10.29	18.20	0.00	26.76	17.65	0.314	0.46	0.46	3.271	A
D	14.85	74.27	14.85	18.17	8.43	0.00	43.83	37.04	0.339	0.52	0.51	2.072	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.44	0.09	6.917	A	A
B	5.42	1.08	2.688	A	A
C	2.13	0.43	3.215	A	A
D	2.44	0.49	2.052	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.48	0.10	7.010	A	A
B	5.77	1.15	2.744	A	A
C	2.26	0.45	3.268	A	A
D	2.54	0.51	2.070	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.49	0.10	7.010	A	A
B	5.80	1.16	2.744	A	A
C	2.27	0.45	3.268	A	A
D	2.55	0.51	2.070	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.55	0.11	7.647	A	A
B	6.50	1.30	2.989	A	A
C	2.53	0.51	3.517	A	A
D	2.80	0.56	2.175	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.72	0.14	9.260	A	A
B	8.57	1.71	3.600	A	A
C	3.26	0.65	4.122	A	A
D	3.43	0.69	2.410	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.96	0.19	11.405	B	B
B	11.31	2.26	4.409	A	A
C	4.18	0.84	4.868	A	A
D	4.14	0.83	2.665	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.25	0.25	14.006	B	B
B	14.59	2.92	5.391	A	A
C	5.21	1.04	5.709	A	A
D	4.84	0.97	2.918	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.56	0.31	16.818	C	B
B	18.00	3.60	6.405	A	A
C	6.20	1.24	6.510	A	A
D	5.44	1.09	3.128	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.81	0.36	18.818	C	B
B	20.79	4.16	7.159	A	A
C	6.94	1.39	7.056	A	A
D	5.83	1.17	3.253	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.91	0.38	19.001	C	B
B	22.12	4.42	7.305	A	A
C	7.24	1.45	7.124	A	A
D	5.96	1.19	3.261	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.88	0.38	17.191	C	B
B	22.01	4.40	6.738	A	A
C	7.11	1.42	6.661	A	A
D	5.84	1.17	3.146	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.57	0.31	14.445	B	B
B	18.63	3.73	5.744	A	A
C	6.16	1.23	5.892	A	A
D	5.29	1.06	2.945	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.18	0.24	11.663	B	B
B	13.93	2.79	4.628	A	A
C	4.87	0.97	4.998	A	A
D	4.52	0.90	2.689	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.86	0.17	9.402	A	A
B	10.09	2.02	3.711	A	A
C	3.71	0.74	4.196	A	A
D	3.72	0.74	2.427	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.62	0.12	7.711	A	A
B	7.29	1.46	3.034	A	A
C	2.79	0.56	3.552	A	A
D	2.98	0.60	2.186	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.52	0.10	7.026	A	A
B	6.13	1.23	2.755	A	A
C	2.38	0.48	3.280	A	A
D	2.63	0.53	2.073	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.50	0.10	7.014	A	A
B	5.93	1.19	2.745	A	A
C	2.32	0.46	3.272	A	A
D	2.58	0.52	2.070	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.50	0.10	7.014	A	A
B	5.90	1.18	2.744	A	A
C	2.30	0.46	3.271	A	A
D	2.57	0.51	2.072	A	A

Junctions 8

ARCADY 8 - Roundabout Module

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Filename: Import of 3167A206 Saturday total traffic with development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:19:56

» Year 2016 Saturday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour + committed + development				
Arm A	1.26	32.57	0.58	D	1 % [Arm A]
Arm B	2.77	5.01	0.74	A	
Arm C	2.05	8.43	0.68	A	
Arm D	1.08	3.22	0.52	A	

Values shown are the maximum values 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.

"D1 - Year 2016 Saturday Peak Hour + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:19:54

File summary

Title	3167A206 Year 2016, Saturday total traffic with development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour + committed + development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2016 Saturday Peak Hour + committed + development, AM	Year 2016 Saturday Peak Hour + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				6.17	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	1	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.20	100.000
B	ONE HOUR	✓	30.02	100.000
C	ONE HOUR	✓	13.28	100.000
D	ONE HOUR	✓	18.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.083	0.683	0.433
	B	0.700	1.133	10.283	17.900
	C	0.117	11.033	0.000	2.133
	D	0.367	14.417	0.933	2.283

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.34	0.60
	C	0.01	0.83	0.00	0.16
	D	0.02	0.80	0.05	0.13

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.58	32.57	1.26	D	2.02	181.97	48.76	16.08	0.54	48.77	16.08
B	0.74	5.01	2.77	A	27.59	2482.85	144.92	3.50	1.61	144.93	3.50
C	0.68	8.43	2.05	A	12.21	1098.74	98.65	5.39	1.10	98.66	5.39
D	0.52	3.22	1.08	A	16.54	1488.89	63.81	2.57	0.71	63.81	2.57

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.62	0.89	22.37	0.00	9.40	0.00	0.177	0.00	0.21	7.679	A
B	22.73	113.64	22.55	20.75	3.24	0.00	47.18	44.58	0.482	0.00	0.92	2.418	A
C	10.06	50.29	9.95	8.93	16.86	0.00	27.62	16.56	0.364	0.00	0.56	3.396	A
D	13.63	68.15	13.54	17.08	9.73	0.00	42.83	37.51	0.318	0.00	0.46	2.048	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.66	0.90	22.56	0.00	9.31	0.00	0.179	0.21	0.21	7.842	A
B	22.73	113.64	22.73	20.95	3.28	0.00	47.15	44.58	0.482	0.92	0.92	2.455	A
C	10.06	50.29	10.06	9.01	17.00	0.00	27.53	16.56	0.365	0.56	0.57	3.433	A
D	13.63	68.15	13.63	17.22	9.83	0.00	42.75	37.51	0.319	0.46	0.47	2.060	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.56	0.00	9.31	0.00	0.179	0.21	0.22	7.846	A
B	22.73	113.64	22.73	20.95	3.28	0.00	47.15	44.58	0.482	0.92	0.93	2.455	A
C	10.06	50.29	10.06	9.01	17.00	0.00	27.53	16.56	0.365	0.57	0.57	3.433	A
D	13.63	68.15	13.63	17.23	9.83	0.00	42.75	37.51	0.319	0.47	0.47	2.060	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.77	0.96	24.05	0.00	8.64	0.00	0.206	0.22	0.25	8.715	A
B	24.25	121.25	24.22	22.32	3.50	0.00	46.99	44.58	0.516	0.93	1.05	2.631	A
C	10.73	53.66	10.71	9.60	18.12	0.00	26.81	16.56	0.400	0.57	0.66	3.725	A
D	14.54	72.71	14.53	18.36	10.47	0.00	42.25	37.51	0.344	0.47	0.52	2.163	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	1.97	1.07	26.88	0.00	7.37	0.00	0.270	0.25	0.35	11.067	B
B	27.14	135.70	27.08	24.95	3.90	0.00	46.69	44.58	0.581	1.05	1.36	3.049	A
C	12.01	60.05	11.97	10.73	20.25	0.00	25.44	16.56	0.472	0.66	0.87	4.438	A
D	16.27	81.37	16.25	20.52	11.70	0.00	41.31	37.51	0.394	0.52	0.64	2.392	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.15	1.17	29.41	0.00	6.23	0.00	0.349	0.35	0.50	14.575	B
B	29.70	148.49	29.63	27.29	4.27	0.00	46.41	44.58	0.640	1.36	1.73	3.562	A
C	13.14	65.71	13.09	11.74	22.15	0.00	24.21	16.56	0.543	0.87	1.15	5.364	A
D	17.81	89.05	17.78	22.45	12.80	0.00	40.46	37.51	0.440	0.64	0.77	2.642	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.29	1.25	31.46	0.00	5.30	0.00	0.439	0.50	0.71	19.566	C
B	31.78	158.88	31.70	29.19	4.56	0.00	46.19	44.58	0.688	1.73	2.12	4.113	A
C	14.06	70.31	14.00	12.56	23.70	0.00	23.22	16.56	0.606	1.15	1.47	6.454	A
D	19.05	95.27	19.03	24.01	13.69	0.00	39.77	37.51	0.479	0.77	0.90	2.888	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.39	1.31	32.92	0.00	4.65	0.00	0.524	0.71	0.97	25.798	D
B	33.24	166.20	33.17	30.54	4.77	0.00	46.03	44.58	0.722	2.12	2.49	4.628	A
C	14.71	73.55	14.65	13.14	24.80	0.00	22.51	16.56	0.653	1.47	1.78	7.547	A
D	19.93	99.66	19.91	25.13	14.32	0.00	39.28	37.51	0.507	0.90	1.01	3.092	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.45	1.34	33.70	0.00	4.30	0.00	0.580	0.97	1.19	31.305	D
B	34.00	169.98	33.95	31.26	4.88	0.00	45.95	44.58	0.740	2.49	2.72	4.969	A
C	15.04	75.22	15.00	13.45	25.39	0.00	22.14	16.56	0.680	1.78	2.00	8.324	A
D	20.39	101.93	20.37	25.72	14.67	0.00	39.02	37.51	0.522	1.01	1.08	3.214	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.48	1.34	33.74	0.00	4.28	0.00	0.582	1.19	1.26	32.574	D
B	34.00	169.98	33.99	31.32	4.90	0.00	45.93	44.58	0.740	2.72	2.77	5.007	A
C	15.04	75.22	15.03	13.47	25.42	0.00	22.12	16.56	0.680	2.00	2.05	8.435	A
D	20.39	101.93	20.38	25.76	14.70	0.00	38.99	37.51	0.523	1.08	1.08	3.223	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.45	1.31	33.02	0.00	4.60	0.00	0.529	1.26	1.21	28.193	D
B	33.24	166.20	33.26	30.66	4.81	0.00	46.01	44.58	0.723	2.77	2.68	4.721	A
C	14.71	73.55	14.73	13.19	24.88	0.00	22.46	16.56	0.655	2.05	1.97	7.792	A
D	19.93	99.66	19.94	25.21	14.39	0.00	39.23	37.51	0.508	1.08	1.05	3.111	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.39	1.26	31.63	0.00	5.23	0.00	0.445	1.21	0.88	21.638	C
B	31.78	158.88	31.85	29.40	4.62	0.00	46.14	44.58	0.689	2.68	2.29	4.228	A
C	14.06	70.31	14.13	12.65	23.83	0.00	23.13	16.56	0.608	1.97	1.62	6.724	A
D	19.05	95.27	19.08	24.16	13.81	0.00	39.68	37.51	0.480	1.05	0.94	2.917	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.24	1.17	29.58	0.00	6.15	0.00	0.354	0.88	0.58	15.536	C
B	29.70	148.49	29.79	27.49	4.32	0.00	46.37	44.58	0.640	2.29	1.83	3.640	A
C	13.14	65.71	13.22	11.83	22.29	0.00	24.13	16.56	0.545	1.62	1.24	5.543	A
D	17.81	89.05	17.84	22.59	12.92	0.00	40.37	37.51	0.441	0.94	0.80	2.666	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	2.03	1.07	27.03	0.00	7.30	0.00	0.272	0.58	0.39	11.456	B
B	27.14	135.70	27.22	25.11	3.94	0.00	46.66	44.58	0.582	1.83	1.42	3.100	A
C	12.01	60.05	12.07	10.80	20.36	0.00	25.36	16.56	0.474	1.24	0.92	4.538	A
D	16.27	81.37	16.30	20.64	11.80	0.00	41.23	37.51	0.395	0.80	0.66	2.411	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.80	0.96	24.14	0.00	8.60	0.00	0.207	0.39	0.27	8.857	A
B	24.25	121.25	24.32	22.43	3.52	0.00	46.98	44.58	0.516	1.42	1.09	2.657	A
C	10.73	53.66	10.78	9.65	18.19	0.00	26.76	16.56	0.401	0.92	0.68	3.764	A
D	14.54	72.71	14.57	18.43	10.53	0.00	42.20	37.51	0.345	0.66	0.53	2.174	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.59	0.00	9.30	0.00	0.179	0.27	0.22	7.881	A
B	22.73	113.64	22.76	20.98	3.29	0.00	47.15	44.58	0.482	1.09	0.94	2.462	A
C	10.06	50.29	10.08	9.02	17.02	0.00	27.51	16.56	0.366	0.68	0.59	3.447	A
D	13.63	68.15	13.64	17.25	9.85	0.00	42.73	37.51	0.319	0.53	0.47	2.064	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.57	0.00	9.31	0.00	0.179	0.22	0.22	7.851	A
B	22.73	113.64	22.73	20.95	3.28	0.00	47.15	44.58	0.482	0.94	0.94	2.458	A
C	10.06	50.29	10.06	9.01	17.00	0.00	27.53	16.56	0.365	0.59	0.58	3.434	A
D	13.63	68.15	13.63	17.23	9.83	0.00	42.75	37.51	0.319	0.47	0.47	2.062	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.56	0.00	9.31	0.00	0.179	0.22	0.22	7.848	A
B	22.73	113.64	22.73	20.95	3.28	0.00	47.15	44.58	0.482	0.94	0.94	2.458	A
C	10.06	50.29	10.06	9.01	17.00	0.00	27.53	16.56	0.365	0.58	0.58	3.437	A
D	13.63	68.15	13.63	17.23	9.83	0.00	42.75	37.51	0.319	0.47	0.47	2.060	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.96	0.19	7.679	A	A
B	4.36	0.87	2.418	A	A
C	2.67	0.53	3.396	A	A
D	2.23	0.45	2.048	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.06	0.21	7.842	A	A
B	4.60	0.92	2.455	A	A
C	2.84	0.57	3.433	A	A
D	2.32	0.46	2.060	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.07	0.21	7.846	A	A
B	4.62	0.92	2.455	A	A
C	2.86	0.57	3.433	A	A
D	2.33	0.47	2.060	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.21	0.24	8.715	A	A
B	5.13	1.03	2.631	A	A
C	3.19	0.64	3.725	A	A
D	2.55	0.51	2.163	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.66	0.33	11.067	B	B
B	6.54	1.31	3.049	A	A
C	4.18	0.84	4.438	A	A
D	3.13	0.63	2.392	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.34	0.47	14.575	B	B
B	8.27	1.65	3.562	A	A
C	5.46	1.09	5.364	A	A
D	3.77	0.75	2.642	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.27	0.65	19.566	C	B
B	10.16	2.03	4.113	A	A
C	6.95	1.39	6.454	A	A
D	4.41	0.88	2.888	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.42	0.88	25.798	D	C
B	11.94	2.39	4.628	A	A
C	8.46	1.69	7.547	A	A
D	4.94	0.99	3.092	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.53	1.11	31.305	D	C
B	13.23	2.65	4.969	A	A
C	9.64	1.93	8.324	A	A
D	5.29	1.06	3.214	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.15	1.23	32.574	D	C
B	13.77	2.75	5.007	A	A
C	10.16	2.03	8.435	A	A
D	5.40	1.08	3.223	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.15	1.23	28.193	D	C
B	13.58	2.72	4.721	A	A
C	10.01	2.00	7.792	A	A
D	5.30	1.06	3.111	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.80	0.96	21.638	C	C
B	11.92	2.38	4.228	A	A
C	8.51	1.70	6.724	A	A
D	4.80	0.96	2.917	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.19	0.64	15.536	C	B
B	9.57	1.91	3.640	A	A
C	6.52	1.30	5.543	A	A
D	4.11	0.82	2.666	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.11	0.42	11.456	B	B
B	7.40	1.48	3.100	A	A
C	4.83	0.97	4.538	A	A
D	3.39	0.68	2.411	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.43	0.29	8.857	A	A
B	5.62	1.12	2.657	A	A
C	3.55	0.71	3.764	A	A
D	2.72	0.54	2.174	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.16	0.23	7.881	A	A
B	4.83	0.97	2.462	A	A
C	3.01	0.60	3.447	A	A
D	2.40	0.48	2.064	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.11	0.22	7.851	A	A
B	4.70	0.94	2.458	A	A
C	2.91	0.58	3.434	A	A
D	2.36	0.47	2.062	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.10	0.22	7.848	A	A
B	4.68	0.94	2.458	A	A
C	2.90	0.58	3.437	A	A
D	2.35	0.47	2.060	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A207 Friday PM total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:35:01

» Year 2020 Friday PM Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday PM Peak Hour + committed + development				
Arm A	0.58	26.75	0.38	D	3 % [Arm A]
Arm B	6.34	9.91	0.87	A	
Arm C	1.89	8.82	0.66	A	
Arm D	1.39	3.61	0.58	A	

Values shown are the maximum values 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.

"D1 - Year 2020 Friday PM Peak Hour + committed + development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:34:58

File summary

Title	3167A207 Year 2020, Friday PM total traffic with development
Location	A259/Mill Lane
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday PM Peak Hour + committed + development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2020 Friday PM Peak Hour + committed + development, AM	Year 2020 Friday PM Peak Hour + committed + development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				8.14	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	3	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.20	100.000
B	ONE HOUR	✓	35.70	100.000
C	ONE HOUR	✓	11.73	100.000
D	ONE HOUR	✓	20.63	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.567	0.117	0.517
	B	0.850	1.067	12.717	21.067
	C	0.167	9.683	0.067	1.817
	D	0.283	17.083	1.483	1.783

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.47	0.10	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.83	0.01	0.15
	D	0.01	0.83	0.07	0.09

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.38	26.75	0.58	D	1.10	99.26	23.64	14.29	0.26	23.64	14.29
B	0.87	9.91	6.34	A	32.81	2952.96	267.77	5.44	2.98	267.78	5.44
C	0.66	8.82	1.89	A	10.78	970.53	89.61	5.54	1.00	89.62	5.54
D	0.58	3.61	1.39	A	18.96	1706.70	79.19	2.78	0.88	79.20	2.78

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.89	0.98	23.40	0.00	8.94	0.00	0.102	0.00	0.11	7.436	A
B	27.03	135.16	26.77	21.31	2.97	0.00	47.39	45.15	0.570	0.00	1.30	2.875	A
C	8.88	44.42	8.78	10.79	18.96	0.00	26.27	17.72	0.338	0.00	0.50	3.413	A
D	15.62	78.12	15.51	18.88	8.86	0.00	43.49	36.91	0.359	0.00	0.55	2.138	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.98	23.60	0.00	8.85	0.00	0.103	0.11	0.11	7.557	A
B	27.03	135.16	27.03	21.50	3.00	0.00	47.36	45.15	0.571	1.30	1.31	2.950	A
C	8.88	44.42	8.88	10.89	19.14	0.00	26.15	17.72	0.340	0.50	0.51	3.474	A
D	15.62	78.12	15.62	19.07	8.96	0.00	43.42	36.91	0.360	0.55	0.56	2.158	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.98	23.60	0.00	8.85	0.00	0.103	0.11	0.11	7.558	A
B	27.03	135.16	27.03	21.50	3.00	0.00	47.36	45.15	0.571	1.31	1.32	2.950	A
C	8.88	44.42	8.88	10.89	19.14	0.00	26.15	17.72	0.340	0.51	0.51	3.474	A
D	15.62	78.12	15.62	19.07	8.96	0.00	43.42	36.91	0.360	0.56	0.56	2.158	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.97	1.05	25.15	0.00	8.15	0.00	0.119	0.11	0.13	8.351	A
B	28.84	144.20	28.80	22.92	3.20	0.00	47.22	45.15	0.611	1.32	1.53	3.249	A
C	9.48	47.39	9.46	11.60	20.40	0.00	25.34	17.72	0.374	0.51	0.59	3.775	A
D	16.67	83.34	16.66	20.31	9.54	0.00	42.97	36.91	0.388	0.56	0.63	2.279	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.07	1.17	28.11	0.00	6.81	0.00	0.159	0.13	0.18	10.434	B
B	32.28	161.39	32.16	25.61	3.58	0.00	46.93	45.15	0.688	1.53	2.12	4.027	A
C	10.61	53.04	10.57	12.96	22.78	0.00	23.81	17.72	0.446	0.59	0.78	4.530	A
D	18.66	93.28	18.62	22.69	10.66	0.00	42.11	36.91	0.443	0.63	0.78	2.551	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.17	1.28	30.76	0.00	5.62	0.00	0.211	0.18	0.25	13.430	B
B	35.32	176.61	35.16	28.02	3.91	0.00	46.68	45.15	0.757	2.12	2.93	5.122	A
C	11.61	58.05	11.56	14.17	24.90	0.00	22.45	17.72	0.517	0.78	1.04	5.481	A
D	20.41	102.07	20.38	24.80	11.66	0.00	41.34	36.91	0.494	0.78	0.96	2.858	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.25	1.37	32.90	0.00	4.66	0.00	0.273	0.25	0.35	17.505	C
B	37.79	188.96	37.58	29.97	4.18	0.00	46.48	45.15	0.813	2.93	3.97	6.560	A
C	12.42	62.10	12.36	15.15	26.62	0.00	21.34	17.72	0.582	1.04	1.33	6.629	A
D	21.84	109.21	21.81	26.52	12.47	0.00	40.71	36.91	0.536	0.96	1.13	3.166	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.31	1.43	34.43	0.00	3.97	0.00	0.335	0.35	0.46	22.295	C
B	39.53	197.67	39.30	31.36	4.38	0.00	46.33	45.15	0.853	3.97	5.12	8.173	A
C	12.99	64.97	12.93	15.84	27.84	0.00	20.56	17.72	0.632	1.33	1.62	7.788	A
D	22.85	114.24	22.82	27.73	13.04	0.00	40.27	36.91	0.567	1.13	1.28	3.432	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.34	1.47	35.24	0.00	3.60	0.00	0.377	0.46	0.55	26.192	D
B	40.43	202.17	40.25	32.10	4.48	0.00	46.25	45.15	0.874	5.12	6.03	9.512	A
C	13.29	66.45	13.25	16.22	28.51	0.00	20.13	17.72	0.660	1.62	1.83	8.634	A
D	23.37	116.85	23.35	28.40	13.36	0.00	40.03	36.91	0.584	1.28	1.37	3.592	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.35	1.47	35.29	0.00	3.58	0.00	0.379	0.55	0.58	26.750	D
B	40.43	202.17	40.37	32.15	4.49	0.00	46.24	45.15	0.874	6.03	6.34	9.912	A
C	13.29	66.45	13.28	16.27	28.59	0.00	20.07	17.72	0.662	1.83	1.89	8.815	A
D	23.37	116.85	23.37	28.48	13.39	0.00	40.00	36.91	0.584	1.37	1.39	3.606	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.34	1.44	34.54	0.00	3.92	0.00	0.339	0.58	0.54	23.323	C
B	39.53	197.67	39.56	31.47	4.40	0.00	46.31	45.15	0.854	6.34	6.18	9.041	A
C	12.99	64.97	13.01	15.94	28.02	0.00	20.44	17.72	0.636	1.89	1.81	8.109	A
D	22.85	114.24	22.86	27.91	13.12	0.00	40.21	36.91	0.568	1.39	1.34	3.462	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.30	1.38	33.08	0.00	4.58	0.00	0.278	0.54	0.41	18.458	C
B	37.79	188.96	38.07	30.16	4.22	0.00	46.45	45.15	0.814	6.18	4.77	7.425	A
C	12.42	62.10	12.48	15.33	26.96	0.00	21.12	17.72	0.588	1.81	1.49	7.006	A
D	21.84	109.21	21.87	26.85	12.60	0.00	40.61	36.91	0.538	1.34	1.19	3.209	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.21	1.29	30.94	0.00	5.54	0.00	0.214	0.41	0.29	13.946	B
B	35.32	176.61	35.61	28.21	3.94	0.00	46.65	45.15	0.757	4.77	3.31	5.578	A
C	11.61	58.05	11.68	14.34	25.22	0.00	22.24	17.72	0.522	1.49	1.13	5.723	A
D	20.41	102.07	20.45	25.11	11.79	0.00	41.24	36.91	0.495	1.19	1.00	2.891	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.10	1.18	28.27	0.00	6.74	0.00	0.161	0.29	0.20	10.672	B
B	32.28	161.39	32.48	25.77	3.60	0.00	46.91	45.15	0.688	3.31	2.29	4.218	A
C	10.61	53.04	10.67	13.08	23.00	0.00	23.67	17.72	0.448	1.13	0.83	4.636	A
D	18.66	93.28	18.69	22.91	10.76	0.00	42.03	36.91	0.444	1.00	0.81	2.575	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.98	1.05	25.25	0.00	8.10	0.00	0.120	0.20	0.14	8.442	A
B	28.84	144.20	28.98	23.02	3.22	0.00	47.20	45.15	0.611	2.29	1.61	3.318	A
C	9.48	47.39	9.52	11.67	20.52	0.00	25.26	17.72	0.375	0.83	0.61	3.825	A
D	16.67	83.34	16.70	20.44	9.60	0.00	42.92	36.91	0.388	0.81	0.64	2.292	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.99	23.63	0.00	8.83	0.00	0.103	0.14	0.12	7.583	A
B	27.03	135.16	27.08	21.53	3.01	0.00	47.36	45.15	0.571	1.61	1.36	2.966	A
C	8.88	44.42	8.90	10.91	19.18	0.00	26.12	17.72	0.340	0.61	0.52	3.489	A
D	15.62	78.12	15.64	19.10	8.98	0.00	43.40	36.91	0.360	0.64	0.57	2.163	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.98	23.60	0.00	8.85	0.00	0.103	0.12	0.12	7.563	A
B	27.03	135.16	27.03	21.51	3.00	0.00	47.36	45.15	0.571	1.36	1.34	2.951	A
C	8.88	44.42	8.89	10.89	19.15	0.00	26.15	17.72	0.340	0.52	0.52	3.478	A
D	15.62	78.12	15.62	19.07	8.96	0.00	43.42	36.91	0.360	0.57	0.57	2.160	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.98	23.60	0.00	8.85	0.00	0.103	0.12	0.12	7.562	A
B	27.03	135.16	27.03	21.50	3.00	0.00	47.36	45.15	0.571	1.34	1.34	2.951	A
C	8.88	44.42	8.88	10.89	19.15	0.00	26.15	17.72	0.340	0.52	0.52	3.475	A
D	15.62	78.12	15.62	19.07	8.96	0.00	43.42	36.91	0.360	0.57	0.56	2.160	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.51	0.10	7.436	A	A
B	6.10	1.22	2.875	A	A
C	2.38	0.48	3.413	A	A
D	2.67	0.53	2.138	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.56	0.11	7.557	A	A
B	6.54	1.31	2.950	A	A
C	2.53	0.51	3.474	A	A
D	2.79	0.56	2.158	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.57	0.11	7.558	A	A
B	6.59	1.32	2.950	A	A
C	2.55	0.51	3.474	A	A
D	2.80	0.56	2.158	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.64	0.13	8.351	A	A
B	7.43	1.49	3.249	A	A
C	2.86	0.57	3.775	A	A
D	3.08	0.62	2.279	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.86	0.17	10.434	B	B
B	10.03	2.01	4.027	A	A
C	3.76	0.75	4.530	A	A
D	3.81	0.76	2.551	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.19	0.24	13.430	B	B
B	13.68	2.74	5.122	A	A
C	4.93	0.99	5.481	A	A
D	4.66	0.93	2.858	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.63	0.33	17.505	C	B
B	18.35	3.67	6.560	A	A
C	6.31	1.26	6.629	A	A
D	5.50	1.10	3.166	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.15	0.43	22.295	C	C
B	23.64	4.73	8.173	A	A
C	7.72	1.54	7.788	A	A
D	6.24	1.25	3.432	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.61	0.52	26.192	D	C
B	28.40	5.68	9.512	A	A
C	8.83	1.77	8.634	A	A
D	6.74	1.35	3.592	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.83	0.57	26.750	D	C
B	31.02	6.20	9.912	A	A
C	9.32	1.86	8.815	A	A
D	6.91	1.38	3.606	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.78	0.56	23.323	C	C
B	31.26	6.25	9.041	A	A
C	9.20	1.84	8.109	A	A
D	6.77	1.35	3.462	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.21	0.44	18.458	C	B
B	25.70	5.14	7.425	A	A
C	7.83	1.57	7.006	A	A
D	6.09	1.22	3.209	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.54	0.31	13.946	B	B
B	17.89	3.58	5.578	A	A
C	5.95	1.19	5.723	A	A
D	5.13	1.03	2.891	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.06	0.21	10.672	B	B
B	12.21	2.44	4.218	A	A
C	4.36	0.87	4.636	A	A
D	4.16	0.83	2.575	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.74	0.15	8.442	A	A
B	8.47	1.69	3.318	A	A
C	3.18	0.64	3.825	A	A
D	3.30	0.66	2.292	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.61	0.12	7.583	A	A
B	7.00	1.40	2.966	A	A
C	2.69	0.54	3.489	A	A
D	2.89	0.58	2.163	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.58	0.12	7.563	A	A
B	6.75	1.35	2.951	A	A
C	2.60	0.52	3.478	A	A
D	2.83	0.57	2.160	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.58	0.12	7.562	A	A
B	6.71	1.34	2.951	A	A
C	2.59	0.52	3.475	A	A
D	2.82	0.56	2.160	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A208 Saturday total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:41:09

» Saturday peak hour 2020 + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Saturday peak hour 2020 + committed + development				
Arm A	2.06	52.60	0.72	F	-4 % [Arm A]
Arm B	3.29	5.72	0.77	A	
Arm C	2.59	10.23	0.73	B	
Arm D	1.21	3.48	0.55	A	

Values shown are the maximum values 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.

"D1 - Saturday peak hour 2020 + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:41:06

File summary

Title	3167A208 Saturday total traffic with development 2020
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Saturday peak hour 2020 + committed + development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Saturday peak hour 2020 + committed + development, AM	Saturday peak hour 2020 + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				7.66	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-4	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.30	100.000
B	ONE HOUR	✓	31.37	100.000
C	ONE HOUR	✓	13.93	100.000
D	ONE HOUR	✓	18.62	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.133	0.717	0.450
	B	0.733	1.183	10.783	18.667
	C	0.133	11.683	0.000	2.117
	D	0.383	15.083	0.983	2.167

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.34	0.60
	C	0.01	0.84	0.00	0.15
	D	0.02	0.81	0.05	0.12

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.72	52.50	2.06	F	2.11	190.25	67.85	21.40	0.75	67.86	21.40
B	0.77	5.72	3.29	A	28.83	2594.52	165.43	3.83	1.84	165.44	3.83
C	0.73	10.23	2.59	B	12.81	1152.51	117.11	6.10	1.30	117.12	6.10
D	0.55	3.48	1.21	A	17.11	1539.89	69.63	2.71	0.77	69.63	2.71

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.69	0.94	23.34	0.00	8.96	0.00	0.194	0.00	0.23	8.258	A
B	23.75	118.75	23.55	21.81	3.23	0.00	47.19	44.88	0.503	0.00	1.00	2.516	A
C	10.55	52.75	10.43	9.36	17.42	0.00	27.26	16.74	0.387	0.00	0.62	3.539	A
D	14.10	70.48	14.00	17.56	10.28	0.00	42.40	37.27	0.332	0.00	0.49	2.106	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.87	0.00	0.196	0.23	0.24	8.413	A
B	23.75	118.75	23.75	22.02	3.27	0.00	47.16	44.88	0.504	1.00	1.01	2.562	A
C	10.55	52.75	10.55	9.45	17.57	0.00	27.16	16.74	0.388	0.62	0.63	3.610	A
D	14.10	70.48	14.10	17.72	10.40	0.00	42.31	37.27	0.333	0.49	0.50	2.126	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.87	0.00	0.196	0.24	0.24	8.417	A
B	23.75	118.75	23.75	22.02	3.27	0.00	47.16	44.88	0.504	1.01	1.01	2.562	A
C	10.55	52.75	10.55	9.45	17.57	0.00	27.16	16.74	0.388	0.63	0.63	3.611	A
D	14.10	70.48	14.10	17.72	10.40	0.00	42.31	37.27	0.333	0.50	0.50	2.126	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.85	1.01	25.10	0.00	8.17	0.00	0.227	0.24	0.28	9.488	A
B	25.34	126.70	25.31	23.46	3.48	0.00	47.00	44.88	0.539	1.01	1.15	2.762	A
C	11.26	56.28	11.24	10.07	18.72	0.00	26.42	16.74	0.426	0.63	0.73	3.945	A
D	15.04	75.20	15.03	18.88	11.08	0.00	41.79	37.27	0.360	0.50	0.56	2.241	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.05	1.13	28.05	0.00	6.84	0.00	0.304	0.28	0.41	12.455	B
B	28.36	141.80	28.29	26.22	3.89	0.00	46.70	44.88	0.607	1.15	1.51	3.245	A
C	12.60	62.99	12.55	11.25	20.92	0.00	25.01	16.74	0.504	0.73	0.99	4.792	A
D	16.83	84.16	16.81	21.10	12.37	0.00	40.79	37.27	0.413	0.56	0.69	2.498	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.23	1.23	30.68	0.00	5.66	0.00	0.402	0.41	0.62	17.076	C
B	31.03	155.17	30.95	28.67	4.24	0.00	46.43	44.88	0.668	1.51	1.95	3.851	A
C	13.79	68.93	13.72	12.31	22.89	0.00	23.74	16.74	0.581	0.99	1.33	5.940	A
D	18.42	92.10	18.39	23.08	13.52	0.00	39.90	37.27	0.462	0.69	0.84	2.786	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.37	1.32	32.82	0.00	4.69	0.00	0.519	0.62	0.94	25.050	D
B	33.20	166.02	33.11	30.66	4.53	0.00	46.21	44.88	0.719	1.95	2.44	4.536	A
C	14.75	73.75	14.67	13.16	24.48	0.00	22.72	16.74	0.649	1.33	1.75	7.360	A
D	19.71	98.54	19.68	24.68	14.46	0.00	39.18	37.27	0.503	0.84	0.99	3.071	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.46	1.38	34.34	0.00	4.01	0.00	0.635	0.94	1.39	36.240	E
B	34.73	173.67	34.64	32.06	4.73	0.00	46.06	44.88	0.754	2.44	2.90	5.196	A
C	15.43	77.15	15.34	13.76	25.61	0.00	21.99	16.74	0.702	1.75	2.18	8.870	A
D	20.62	103.08	20.59	25.82	15.13	0.00	38.66	37.27	0.533	0.99	1.12	3.309	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.51	1.41	35.15	0.00	3.64	0.00	0.715	1.39	1.86	48.016	E
B	35.53	177.63	35.46	32.83	4.84	0.00	45.98	44.88	0.773	2.90	3.22	5.648	A
C	15.78	78.90	15.72	14.09	26.22	0.00	21.60	16.74	0.730	2.18	2.50	10.013	B
D	21.09	105.43	21.07	26.44	15.50	0.00	38.38	37.27	0.549	1.12	1.20	3.463	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.56	1.42	35.21	0.00	3.62	0.00	0.720	1.86	2.06	52.598	F
B	35.53	177.63	35.51	32.90	4.87	0.00	45.96	44.88	0.773	3.22	3.29	5.716	A
C	15.78	78.90	15.76	14.12	26.26	0.00	21.58	16.74	0.731	2.50	2.59	10.230	B
D	21.09	105.43	21.08	26.48	15.54	0.00	38.34	37.27	0.550	1.20	1.21	3.475	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.56	1.39	34.46	0.00	3.95	0.00	0.644	2.06	2.00	44.393	E
B	34.73	173.67	34.76	32.24	4.79	0.00	46.02	44.88	0.755	3.29	3.19	5.353	A
C	15.43	77.15	15.45	13.84	25.71	0.00	21.93	16.74	0.704	2.59	2.49	9.334	A
D	20.62	103.08	20.62	25.93	15.23	0.00	38.59	37.27	0.534	1.21	1.17	3.342	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.58	1.33	33.03	0.00	4.60	0.00	0.530	2.00	1.29	31.231	D
B	33.20	166.02	33.30	30.97	4.65	0.00	46.13	44.88	0.720	3.19	2.68	4.725	A
C	14.75	73.75	14.85	13.29	24.66	0.00	22.61	16.74	0.652	2.49	1.99	7.851	A
D	19.71	98.54	19.73	24.88	14.63	0.00	39.05	37.27	0.505	1.17	1.04	3.113	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.38	1.24	30.90	0.00	5.56	0.00	0.409	1.29	0.75	19.431	C
B	31.03	155.17	31.15	28.95	4.33	0.00	46.36	44.88	0.669	2.68	2.10	3.978	A
C	13.79	68.93	13.89	12.43	23.06	0.00	23.63	16.74	0.583	1.99	1.46	6.227	A
D	18.42	92.10	18.45	23.26	13.68	0.00	39.77	37.27	0.463	1.04	0.88	2.820	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.14	1.13	28.22	0.00	6.76	0.00	0.307	0.75	0.47	13.116	B
B	28.36	141.80	28.46	26.42	3.94	0.00	46.66	44.88	0.608	2.10	1.59	3.318	A
C	12.60	62.99	12.68	11.34	21.06	0.00	24.92	16.74	0.506	1.46	1.05	4.935	A
D	16.83	84.16	16.86	21.24	12.49	0.00	40.69	37.27	0.414	0.88	0.71	2.521	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.89	1.01	25.20	0.00	8.12	0.00	0.229	0.47	0.31	9.676	A
B	25.34	126.70	25.42	23.59	3.51	0.00	46.98	44.88	0.539	1.59	1.19	2.794	A
C	11.26	56.28	11.31	10.12	18.80	0.00	26.37	16.74	0.427	1.05	0.76	4.003	A
D	15.04	75.20	15.07	18.97	11.15	0.00	41.73	37.27	0.360	0.71	0.57	2.254	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.75	0.95	23.58	0.00	8.85	0.00	0.197	0.31	0.25	8.465	A
B	23.75	118.75	23.78	22.06	3.28	0.00	47.16	44.88	0.504	1.19	1.03	2.570	A
C	10.55	52.75	10.57	9.47	17.59	0.00	27.15	16.74	0.389	0.76	0.65	3.628	A
D	14.10	70.48	14.11	17.74	10.42	0.00	42.29	37.27	0.333	0.57	0.50	2.131	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.87	0.00	0.196	0.25	0.25	8.424	A
B	23.75	118.75	23.75	22.02	3.27	0.00	47.16	44.88	0.504	1.03	1.02	2.562	A
C	10.55	52.75	10.55	9.45	17.57	0.00	27.16	16.74	0.388	0.65	0.64	3.612	A
D	14.10	70.48	14.10	17.72	10.40	0.00	42.31	37.27	0.333	0.50	0.50	2.126	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.87	0.00	0.196	0.25	0.25	8.420	A
B	23.75	118.75	23.75	22.02	3.27	0.00	47.16	44.88	0.504	1.02	1.02	2.562	A
C	10.55	52.75	10.55	9.45	17.57	0.00	27.16	16.74	0.388	0.64	0.64	3.611	A
D	14.10	70.48	14.10	17.72	10.40	0.00	42.31	37.27	0.333	0.50	0.50	2.128	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.07	0.21	8.258	A	A
B	4.73	0.95	2.516	A	A
C	2.92	0.58	3.539	A	A
D	2.37	0.47	2.106	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.19	0.24	8.413	A	A
B	5.01	1.00	2.562	A	A
C	3.12	0.62	3.610	A	A
D	2.48	0.50	2.126	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.20	0.24	8.417	A	A
B	5.04	1.01	2.562	A	A
C	3.15	0.63	3.611	A	A
D	2.49	0.50	2.126	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.37	0.27	9.488	A	A
B	5.61	1.12	2.762	A	A
C	3.54	0.71	3.945	A	A
D	2.73	0.55	2.241	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.93	0.39	12.455	B	B
B	7.24	1.45	3.245	A	A
C	4.70	0.94	4.792	A	A
D	3.38	0.68	2.498	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.84	0.57	17.076	C	B
B	9.29	1.86	3.851	A	A
C	6.28	1.26	5.940	A	A
D	4.10	0.82	2.786	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.22	0.84	25.050	D	C
B	11.61	2.32	4.536	A	A
C	8.21	1.64	7.360	A	A
D	4.83	0.97	3.071	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.16	1.23	36.240	E	D
B	13.86	2.77	5.196	A	A
C	10.26	2.05	8.870	A	A
D	5.46	1.09	3.309	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.35	1.67	48.016	E	D
B	15.56	3.11	5.648	A	A
C	11.96	2.39	10.013	B	B
D	5.87	1.17	3.463	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.87	1.97	52.598	F	D
B	16.30	3.26	5.716	A	A
C	12.76	2.55	10.230	B	B
D	6.01	1.20	3.475	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.14	2.03	44.393	E	D
B	16.14	3.23	5.353	A	A
C	12.64	2.53	9.334	A	A
D	5.90	1.18	3.342	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.28	1.46	31.231	D	C
B	14.03	2.81	4.725	A	A
C	10.54	2.11	7.851	A	A
D	5.31	1.06	3.113	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.22	0.84	19.431	C	B
B	11.00	2.20	3.978	A	A
C	7.76	1.55	6.227	A	A
D	4.50	0.90	2.820	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.56	0.51	13.116	B	B
B	8.31	1.66	3.318	A	A
C	5.55	1.11	4.935	A	A
D	3.67	0.73	2.521	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.65	0.33	9.676	A	A
B	6.20	1.24	2.794	A	A
C	3.97	0.79	4.003	A	A
D	2.92	0.58	2.254	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.32	0.26	8.465	A	A
B	5.28	1.06	2.570	A	A
C	3.33	0.67	3.628	A	A
D	2.57	0.51	2.131	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.25	0.25	8.424	A	A
B	5.13	1.03	2.562	A	A
C	3.22	0.64	3.612	A	A
D	2.52	0.50	2.126	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.24	0.25	8.420	A	A
B	5.11	1.02	2.562	A	A
C	3.20	0.64	3.611	A	A
D	2.51	0.50	2.128	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A211 Friday PM do nothing + committed development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:43:47

» Year 2016 Friday PM Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday PM Peak Hour + committed				
Arm A	2.19	5.79	0.69	A	12 % [Arm D]
Arm B	1.60	10.92	0.62	B	
Arm C	1.61	8.13	0.62	A	
Arm D	5.09	12.11	0.85	B	
Arm E	0.39	12.46	0.29	B	

Values shown are the maximum values 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.

"D1 - Year 2016 Friday PM Peak Hour + committed, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:43:44

File summary

Title	3167A211 Year 2016, Friday PM peak hour Existing traffic + committed development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday PM Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2016 Friday PM Peak Hour + committed, AM	Year 2016 Friday PM Peak Hour + committed	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				9.30	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	12	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.47	100.000
B	ONE HOUR	✓	8.02	100.000
C	ONE HOUR	✓	10.77	100.000
D	ONE HOUR	✓	23.52	100.000
E	ONE HOUR	✓	1.70	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.067	0.783	4.933	13.317	0.367
	B	2.333	0.000	2.250	3.367	0.067
	C	4.550	2.400	0.000	3.683	0.133
	D	11.533	5.533	6.083	0.000	0.367
	E	0.667	0.250	0.150	0.633	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.05	0.04	0.24	0.65	0.02
	B	0.29	0.00	0.28	0.42	0.01
	C	0.42	0.22	0.00	0.34	0.01
	D	0.49	0.24	0.26	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.69	5.79	2.19	A	18.81	1692.92	113.35	4.02	1.26	113.36	4.02
B	0.62	10.92	1.60	B	7.37	663.11	77.61	7.02	0.86	77.61	7.02
C	0.62	8.13	1.61	A	9.90	890.57	82.94	5.59	0.92	82.95	5.59
D	0.85	12.11	5.09	B	21.61	1945.20	219.69	6.78	2.44	219.71	6.78
E	0.29	12.46	0.39	B	1.56	140.62	19.70	8.41	0.22	19.70	8.41

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.36	15.07	11.25	0.00	37.08	31.20	0.418	0.00	0.71	2.745	A
B	6.07	30.35	5.98	6.71	19.90	0.00	19.43	9.91	0.312	0.00	0.44	4.434	A
C	8.15	40.76	8.05	10.04	15.84	0.00	23.81	15.70	0.342	0.00	0.51	3.783	A
D	17.81	89.03	17.59	15.73	8.16	0.00	33.81	29.59	0.527	0.00	1.08	3.654	A
E	1.29	6.44	1.26	0.70	25.05	0.00	11.99	4.32	0.107	0.00	0.12	5.583	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.50	15.25	11.39	0.00	36.99	31.20	0.419	0.71	0.71	2.791	A
B	6.07	30.35	6.07	6.79	20.10	0.00	19.33	9.91	0.314	0.44	0.45	4.522	A
C	8.15	40.76	8.15	10.16	16.01	0.00	23.72	15.70	0.344	0.51	0.52	3.854	A
D	17.81	89.03	17.80	15.90	8.26	0.00	33.75	29.59	0.528	1.08	1.10	3.762	A
E	1.29	6.44	1.29	0.71	25.36	0.00	11.86	4.32	0.109	0.12	0.12	5.672	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.50	15.26	11.40	0.00	36.99	31.20	0.419	0.71	0.72	2.791	A
B	6.07	30.35	6.07	6.79	20.10	0.00	19.33	9.91	0.314	0.45	0.45	4.523	A
C	8.15	40.76	8.15	10.16	16.01	0.00	23.72	15.70	0.344	0.52	0.52	3.854	A
D	17.81	89.03	17.81	15.90	8.27	0.00	33.75	29.59	0.528	1.10	1.11	3.762	A
E	1.29	6.44	1.29	0.71	25.36	0.00	11.86	4.32	0.109	0.12	0.12	5.672	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.53	82.67	16.51	16.25	12.14	0.00	36.53	31.20	0.453	0.72	0.81	2.995	A
B	6.48	32.38	6.46	7.23	21.42	0.00	18.70	9.91	0.346	0.45	0.52	4.895	A
C	8.70	43.49	8.68	10.82	17.06	0.00	23.17	15.70	0.375	0.52	0.59	4.138	A
D	19.00	94.99	18.96	16.94	8.80	0.00	33.44	29.59	0.568	1.11	1.28	4.134	A
E	1.37	6.87	1.37	0.75	27.02	0.00	11.19	4.32	0.123	0.12	0.14	6.112	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.51	92.53	18.46	18.14	13.55	0.00	35.65	31.20	0.519	0.81	1.06	3.478	A
B	7.25	36.24	7.21	8.07	23.93	0.00	17.49	9.91	0.414	0.52	0.69	5.819	A
C	9.73	48.67	9.70	12.08	19.06	0.00	22.11	15.70	0.440	0.59	0.77	4.818	A
D	21.26	106.31	21.17	18.93	9.83	0.00	32.85	29.59	0.647	1.28	1.76	5.087	A
E	1.54	7.69	1.53	0.84	30.16	0.00	9.90	4.32	0.155	0.14	0.18	7.160	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.25	101.25	20.19	19.84	14.81	0.00	34.87	31.20	0.581	1.06	1.35	4.069	A
B	7.93	39.66	7.89	8.83	26.17	0.00	16.41	9.91	0.483	0.69	0.90	7.003	A
C	10.65	53.26	10.61	13.21	20.85	0.00	21.17	15.70	0.503	0.77	0.98	5.654	A
D	23.27	116.34	23.14	20.70	10.76	0.00	32.31	29.59	0.720	1.76	2.41	6.432	A
E	1.68	8.41	1.67	0.92	32.97	0.00	8.75	4.32	0.192	0.18	0.23	8.480	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.67	108.33	21.60	21.21	15.83	0.00	34.24	31.20	0.633	1.35	1.66	4.716	A
B	8.49	42.43	8.44	9.44	28.00	0.00	15.53	9.91	0.546	0.90	1.14	8.391	A
C	11.40	56.99	11.35	14.13	22.30	0.00	20.40	15.70	0.559	0.98	1.21	6.585	A
D	24.89	124.47	24.73	22.15	11.51	0.00	31.88	29.59	0.781	2.41	3.24	8.156	A
E	1.80	9.00	1.79	0.98	35.25	0.00	7.81	4.32	0.230	0.23	0.29	9.936	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.66	113.32	22.61	22.19	16.56	0.00	33.79	31.20	0.671	1.66	1.95	5.330	A
B	8.88	44.39	8.83	9.87	29.29	0.00	14.90	9.91	0.596	1.14	1.39	9.770	A
C	11.92	59.61	11.88	14.78	23.34	0.00	19.86	15.70	0.600	1.21	1.43	7.466	A
D	26.04	130.21	25.86	23.18	12.04	0.00	31.57	29.59	0.825	3.24	4.13	10.071	B
E	1.88	9.41	1.87	1.03	36.88	0.00	7.15	4.32	0.263	0.29	0.34	11.330	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.18	115.90	23.14	22.72	16.96	0.00	33.54	31.20	0.691	1.95	2.14	5.737	A
B	9.08	45.40	9.05	10.11	29.99	0.00	14.57	9.91	0.623	1.39	1.55	10.755	B
C	12.19	60.97	12.17	15.14	23.90	0.00	19.56	15.70	0.623	1.43	1.58	8.059	A
D	26.63	133.17	26.49	23.73	12.33	0.00	31.41	29.59	0.848	4.13	4.85	11.639	B
E	1.93	9.63	1.92	1.05	37.77	0.00	6.78	4.32	0.284	0.34	0.38	12.301	B

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.18	115.90	23.17	22.79	17.02	0.00	33.50	31.20	0.692	2.14	2.19	5.792	A
B	9.08	45.40	9.07	10.14	30.05	0.00	14.54	9.91	0.624	1.55	1.60	10.917	B
C	12.19	60.97	12.19	15.18	23.94	0.00	19.54	15.70	0.624	1.58	1.61	8.132	A
D	26.63	133.17	26.59	23.77	12.36	0.00	31.39	29.59	0.848	4.85	5.09	12.112	B
E	1.93	9.63	1.92	1.06	37.89	0.00	6.74	4.32	0.286	0.38	0.39	12.465	B

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.66	113.32	22.68	22.33	16.68	0.00	33.71	31.20	0.672	2.19	2.11	5.453	A
B	8.88	44.39	8.89	9.94	29.42	0.00	14.84	9.91	0.598	1.60	1.55	10.121	B
C	11.92	59.61	11.93	14.87	23.44	0.00	19.80	15.70	0.602	1.61	1.56	7.647	A
D	26.04	130.21	26.06	23.27	12.10	0.00	31.54	29.59	0.826	5.09	5.00	11.113	B
E	1.88	9.41	1.89	1.03	37.13	0.00	7.05	4.32	0.267	0.39	0.38	11.641	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.67	108.33	21.73	21.48	16.05	0.00	34.10	31.20	0.635	2.11	1.81	4.877	A
B	8.49	42.43	8.54	9.56	28.22	0.00	15.42	9.91	0.550	1.55	1.29	8.799	A
C	11.40	56.99	11.44	14.29	22.47	0.00	20.31	15.70	0.561	1.56	1.33	6.806	A
D	24.89	124.47	25.11	22.31	11.61	0.00	31.82	29.59	0.782	5.00	3.94	9.243	A
E	1.80	9.00	1.81	0.99	35.72	0.00	7.62	4.32	0.236	0.38	0.32	10.348	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.25	101.25	20.32	20.10	15.03	0.00	34.74	31.20	0.583	1.81	1.44	4.185	A
B	7.93	39.66	7.99	8.94	26.41	0.00	16.30	9.91	0.487	1.29	0.99	7.283	A
C	10.65	53.26	10.71	13.37	21.03	0.00	21.08	15.70	0.505	1.33	1.06	5.821	A
D	23.27	116.34	23.50	20.87	10.86	0.00	32.25	29.59	0.721	3.94	2.76	7.037	A
E	1.68	8.41	1.70	0.93	33.43	0.00	8.56	4.32	0.197	0.32	0.25	8.761	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.51	92.53	18.57	18.34	13.71	0.00	35.55	31.20	0.520	1.44	1.11	3.549	A
B	7.25	36.24	7.30	8.16	24.12	0.00	17.40	9.91	0.417	0.99	0.74	5.972	A
C	9.73	48.67	9.78	12.21	19.21	0.00	22.03	15.70	0.442	1.06	0.81	4.918	A
D	21.26	106.31	21.43	19.07	9.92	0.00	32.79	29.59	0.648	2.76	1.93	5.357	A
E	1.54	7.69	1.55	0.85	30.50	0.00	9.76	4.32	0.158	0.25	0.19	7.319	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.53	82.67	16.59	16.37	12.23	0.00	36.47	31.20	0.453	1.11	0.84	3.025	A
B	6.48	32.38	6.51	7.28	21.53	0.00	18.64	9.91	0.347	0.74	0.54	4.962	A
C	8.70	43.49	8.74	10.89	17.16	0.00	23.12	15.70	0.376	0.81	0.62	4.185	A
D	19.00	94.99	19.11	17.03	8.86	0.00	33.41	29.59	0.569	1.93	1.36	4.230	A
E	1.37	6.87	1.38	0.76	27.21	0.00	11.11	4.32	0.124	0.19	0.14	6.176	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.52	15.29	11.42	0.00	36.97	31.20	0.419	0.84	0.73	2.802	A
B	6.07	30.35	6.09	6.80	20.14	0.00	19.32	9.91	0.314	0.54	0.47	4.540	A
C	8.15	40.76	8.17	10.18	16.04	0.00	23.70	15.70	0.344	0.62	0.53	3.866	A
D	17.81	89.03	17.85	15.93	8.28	0.00	33.74	29.59	0.528	1.36	1.14	3.789	A
E	1.29	6.44	1.29	0.71	25.42	0.00	11.84	4.32	0.109	0.14	0.12	5.690	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.50	15.26	11.40	0.00	36.99	31.20	0.419	0.73	0.73	2.794	A
B	6.07	30.35	6.07	6.79	20.11	0.00	19.33	9.91	0.314	0.47	0.46	4.526	A
C	8.15	40.76	8.15	10.16	16.02	0.00	23.72	15.70	0.344	0.53	0.53	3.855	A
D	17.81	89.03	17.81	15.90	8.27	0.00	33.75	29.59	0.528	1.14	1.13	3.765	A
E	1.29	6.44	1.29	0.71	25.37	0.00	11.86	4.32	0.109	0.12	0.12	5.676	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.50	77.49	15.50	15.26	11.40	0.00	36.99	31.20	0.419	0.73	0.72	2.794	A
B	6.07	30.35	6.07	6.79	20.10	0.00	19.33	9.91	0.314	0.46	0.46	4.524	A
C	8.15	40.76	8.15	10.16	16.02	0.00	23.72	15.70	0.344	0.53	0.53	3.856	A
D	17.81	89.03	17.81	15.90	8.27	0.00	33.75	29.59	0.528	1.13	1.13	3.766	A
E	1.29	6.44	1.29	0.71	25.37	0.00	11.86	4.32	0.109	0.12	0.12	5.676	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.36	0.67	2.745	A	A
B	2.09	0.42	4.434	A	A
C	2.41	0.48	3.783	A	A
D	5.06	1.01	3.654	A	A
E	0.55	0.11	5.583	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.56	0.71	2.791	A	A
B	2.25	0.45	4.522	A	A
C	2.58	0.52	3.854	A	A
D	5.48	1.10	3.762	A	A
E	0.60	0.12	5.672	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.58	0.72	2.791	A	A
B	2.27	0.45	4.523	A	A
C	2.60	0.52	3.854	A	A
D	5.52	1.10	3.762	A	A
E	0.60	0.12	5.672	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.98	0.80	2.995	A	A
B	2.52	0.50	4.895	A	A
C	2.88	0.58	4.138	A	A
D	6.20	1.24	4.134	A	A
E	0.67	0.13	6.112	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.08	1.02	3.478	A	A
B	3.28	0.66	5.819	A	A
C	3.68	0.74	4.818	A	A
D	8.30	1.66	5.087	A	A
E	0.86	0.17	7.160	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.45	1.29	4.069	A	A
B	4.27	0.85	7.003	A	A
C	4.68	0.94	5.654	A	A
D	11.25	2.25	6.432	A	A
E	1.10	0.22	8.480	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.95	1.59	4.716	A	A
B	5.42	1.08	8.391	A	A
C	5.79	1.16	6.585	A	A
D	14.96	2.99	8.156	A	A
E	1.38	0.28	9.936	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.37	1.87	5.330	A	A
B	6.58	1.32	9.770	A	A
C	6.85	1.37	7.466	A	A
D	19.13	3.83	10.071	B	B
E	1.64	0.33	11.330	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.41	2.08	5.737	A	A
B	7.49	1.50	10.755	B	B
C	7.65	1.53	8.059	A	A
D	22.86	4.57	11.639	B	B
E	1.84	0.37	12.301	B	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.85	2.17	5.792	A	A
B	7.90	1.58	10.917	B	B
C	7.99	1.60	8.132	A	A
D	24.93	4.99	12.112	B	B
E	1.93	0.39	12.465	B	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.70	2.14	5.453	A	A
B	7.83	1.57	10.121	B	B
C	7.90	1.58	7.647	A	A
D	25.20	5.04	11.113	B	B
E	1.90	0.38	11.641	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.38	1.88	4.877	A	A
B	6.76	1.35	8.799	A	A
C	6.94	1.39	6.806	A	A
D	21.15	4.23	9.243	A	A
E	1.67	0.33	10.348	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.51	1.50	4.185	A	A
B	5.21	1.04	7.283	A	A
C	5.54	1.11	5.821	A	A
D	14.96	2.99	7.037	A	A
E	1.32	0.26	8.761	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.78	1.16	3.549	A	A
B	3.87	0.77	5.972	A	A
C	4.25	0.85	4.918	A	A
D	10.28	2.06	5.357	A	A
E	1.00	0.20	7.319	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.37	0.87	3.025	A	A
B	2.85	0.57	4.962	A	A
C	3.20	0.64	4.185	A	A
D	7.16	1.43	4.230	A	A
E	0.75	0.15	6.176	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.75	0.75	2.802	A	A
B	2.40	0.48	4.540	A	A
C	2.74	0.55	3.866	A	A
D	5.91	1.18	3.789	A	A
E	0.64	0.13	5.690	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.64	0.73	2.794	A	A
B	2.32	0.46	4.526	A	A
C	2.65	0.53	3.855	A	A
D	5.68	1.14	3.765	A	A
E	0.62	0.12	5.676	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.63	0.73	2.794	A	A
B	2.31	0.46	4.524	A	A
C	2.64	0.53	3.856	A	A
D	5.64	1.13	3.766	A	A
E	0.61	0.12	5.676	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A212 Saturday do nothing + committed development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:46:07

» Year 2016 Saturday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour + committed				
Arm A	1.60	4.45	0.62	A	16 % [Arm D]
Arm B	1.22	8.39	0.56	A	
Arm C	1.11	6.47	0.53	A	
Arm D	4.26	10.12	0.82	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2016 Saturday Peak Hour + committed, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:46:03

File summary

Title	3167A212 Year 2016, Saturday PM peak hour Existing traffic + committed dev
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2016 Saturday Peak Hour + committed, AM	Year 2016 Saturday Peak Hour + committed	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				7.50	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	16	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	19.33	100.000
B	ONE HOUR	✓	7.90	100.000
C	ONE HOUR	✓	9.25	100.000
D	ONE HOUR	✓	23.35	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.883	3.833	13.367	0.000
	B	2.317	0.000	1.700	3.883	0.000
	C	4.033	2.017	0.000	3.200	0.000
	D	12.983	5.100	5.267	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.05	0.20	0.69	0.00
	B	0.29	0.00	0.22	0.49	0.00
	C	0.44	0.22	0.00	0.35	0.00
	D	0.56	0.22	0.23	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.62	4.45	1.60	A	17.77	1599.17	89.42	3.36	0.99	89.43	3.36
B	0.56	8.39	1.22	A	7.26	653.46	64.25	5.90	0.71	64.25	5.90
C	0.53	6.47	1.11	A	8.50	765.12	61.03	4.79	0.68	61.04	4.79
D	0.82	10.12	4.26	B	21.46	1931.42	194.61	6.05	2.16	194.62	6.05
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.52	15.40	9.27	0.00	38.30	33.82	0.382	0.00	0.61	2.511	A
B	5.98	29.91	5.90	5.99	17.80	0.00	20.45	10.20	0.293	0.00	0.41	4.106	A
C	7.00	35.02	6.92	8.09	15.61	0.00	23.93	14.46	0.293	0.00	0.41	3.516	A
D	17.68	88.40	17.47	15.33	7.20	0.00	34.36	30.08	0.515	0.00	1.03	3.511	A
E	0.00	0.00	0.00	0.00	24.67	0.00	12.15	3.94	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.64	15.58	9.38	0.00	38.24	33.82	0.383	0.61	0.62	2.542	A
B	5.98	29.91	5.98	6.06	17.96	0.00	20.37	10.20	0.294	0.41	0.41	4.170	A
C	7.00	35.02	7.00	8.18	15.76	0.00	23.85	14.46	0.294	0.41	0.41	3.560	A
D	17.68	88.40	17.68	15.48	7.28	0.00	34.32	30.08	0.515	1.03	1.05	3.605	A
E	0.00	0.00	0.00	0.00	24.96	0.00	12.03	3.94	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.64	15.58	9.38	0.00	38.24	33.82	0.383	0.62	0.62	2.542	A
B	5.98	29.91	5.98	6.06	17.96	0.00	20.37	10.20	0.294	0.41	0.41	4.170	A
C	7.00	35.02	7.00	8.18	15.76	0.00	23.85	14.46	0.294	0.41	0.41	3.560	A
D	17.68	88.40	17.68	15.48	7.28	0.00	34.32	30.08	0.515	1.05	1.05	3.605	A
E	0.00	0.00	0.00	0.00	24.96	0.00	12.03	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.09	15.60	16.60	9.99	0.00	37.86	33.82	0.413	0.62	0.69	2.696	A
B	6.38	31.91	6.37	6.45	19.14	0.00	19.80	10.20	0.322	0.41	0.47	4.464	A
C	7.47	37.36	7.46	8.71	16.80	0.00	23.31	14.46	0.321	0.41	0.46	3.785	A
D	18.86	94.32	18.83	16.50	7.76	0.00	34.04	30.08	0.554	1.05	1.21	3.938	A
E	0.00	0.00	0.00	0.00	26.59	0.00	11.36	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.48	87.40	17.44	18.54	11.15	0.00	37.14	33.82	0.471	0.69	0.87	3.042	A
B	7.14	35.71	7.12	7.21	21.39	0.00	18.71	10.20	0.382	0.47	0.60	5.160	A
C	8.36	41.82	8.34	9.73	18.77	0.00	22.26	14.46	0.376	0.46	0.59	4.300	A
D	21.11	105.56	21.03	18.44	8.67	0.00	33.52	30.08	0.630	1.21	1.64	4.768	A
E	0.00	0.00	0.00	0.00	29.70	0.00	10.09	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.13	95.64	19.09	20.28	12.20	0.00	36.49	33.82	0.524	0.87	1.08	3.438	A
B	7.82	39.08	7.78	7.88	23.40	0.00	17.74	10.20	0.441	0.60	0.76	6.002	A
C	9.15	45.76	9.12	10.65	20.54	0.00	21.33	14.46	0.429	0.59	0.73	4.902	A
D	23.10	115.51	22.99	20.18	9.48	0.00	33.05	30.08	0.699	1.64	2.20	5.891	A
E	0.00	0.00	0.00	0.00	32.47	0.00	8.95	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.47	102.33	20.42	21.69	13.04	0.00	35.97	33.82	0.569	1.08	1.29	3.847	A
B	8.36	41.81	8.33	8.43	25.04	0.00	16.96	10.20	0.493	0.76	0.94	6.921	A
C	9.79	48.96	9.76	11.39	21.98	0.00	20.58	14.46	0.476	0.73	0.88	5.530	A
D	24.72	123.59	24.58	21.59	10.15	0.00	32.66	30.08	0.757	2.20	2.88	7.271	A
E	0.00	0.00	0.00	0.00	34.73	0.00	8.03	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.41	107.05	21.37	22.69	13.65	0.00	35.59	33.82	0.601	1.29	1.47	4.206	A
B	8.75	43.74	8.72	8.82	26.20	0.00	16.40	10.20	0.534	0.94	1.09	7.769	A
C	10.24	51.22	10.22	11.91	23.00	0.00	20.04	14.46	0.511	0.88	1.01	6.107	A
D	25.86	129.29	25.72	22.60	10.62	0.00	32.39	30.08	0.798	2.88	3.58	8.731	A
E	0.00	0.00	0.00	0.00	36.34	0.00	7.37	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.90	109.48	21.87	23.24	13.98	0.00	35.39	33.82	0.619	1.47	1.58	4.429	A
B	8.95	44.74	8.93	9.03	26.82	0.00	16.10	10.20	0.556	1.09	1.20	8.326	A
C	10.48	52.38	10.46	12.20	23.54	0.00	19.75	14.46	0.530	1.01	1.09	6.445	A
D	26.45	132.23	26.34	23.13	10.87	0.00	32.25	30.08	0.820	3.58	4.10	9.854	A
E	0.00	0.00	0.00	0.00	37.21	0.00	7.01	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.90	109.48	21.89	23.29	14.01	0.00	35.37	33.82	0.619	1.58	1.60	4.448	A
B	8.95	44.74	8.94	9.05	26.85	0.00	16.08	10.20	0.556	1.20	1.22	8.385	A
C	10.48	52.38	10.47	12.22	23.57	0.00	19.74	14.46	0.531	1.09	1.11	6.475	A
D	26.45	132.23	26.41	23.16	10.89	0.00	32.24	30.08	0.820	4.10	4.26	10.123	B
E	0.00	0.00	0.00	0.00	37.30	0.00	6.97	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.41	107.05	21.42	22.81	13.72	0.00	35.55	33.82	0.602	1.60	1.55	4.255	A
B	8.75	43.74	8.76	8.87	26.28	0.00	16.36	10.20	0.535	1.22	1.18	7.911	A
C	10.24	51.22	10.25	11.97	23.07	0.00	20.00	14.46	0.512	1.11	1.07	6.161	A
D	25.86	129.29	25.88	22.66	10.66	0.00	32.37	30.08	0.799	4.26	4.17	9.338	A
E	0.00	0.00	0.00	0.00	36.53	0.00	7.29	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.47	102.33	20.50	21.90	13.19	0.00	35.88	33.82	0.570	1.55	1.36	3.915	A
B	8.36	41.81	8.40	8.51	25.18	0.00	16.89	10.20	0.495	1.18	1.02	7.098	A
C	9.79	48.96	9.82	11.48	22.09	0.00	20.52	14.46	0.477	1.07	0.94	5.628	A
D	24.72	123.59	24.88	21.70	10.21	0.00	32.63	30.08	0.758	4.17	3.37	7.928	A
E	0.00	0.00	0.00	0.00	35.09	0.00	7.88	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.13	95.64	19.17	20.49	12.34	0.00	36.40	33.82	0.525	1.36	1.13	3.492	A
B	7.82	39.08	7.86	7.96	23.55	0.00	17.67	10.20	0.442	1.02	0.82	6.141	A
C	9.15	45.76	9.19	10.74	20.66	0.00	21.27	14.46	0.430	0.94	0.77	4.980	A
D	23.10	115.51	23.28	20.30	9.55	0.00	33.01	30.08	0.700	3.37	2.47	6.287	A
E	0.00	0.00	0.00	0.00	32.83	0.00	8.80	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.48	87.40	17.53	18.72	11.26	0.00	37.07	33.82	0.472	1.13	0.91	3.077	A
B	7.14	35.71	7.18	7.27	21.52	0.00	18.65	10.20	0.383	0.82	0.64	5.248	A
C	8.36	41.82	8.40	9.81	18.88	0.00	22.21	14.46	0.377	0.77	0.62	4.354	A
D	21.11	105.56	21.25	18.55	8.73	0.00	33.48	30.08	0.631	2.47	1.77	4.962	A
E	0.00	0.00	0.00	0.00	29.98	0.00	9.97	3.94	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.09	15.66	16.71	10.05	0.00	37.82	33.82	0.413	0.91	0.71	2.714	A
B	6.38	31.91	6.41	6.49	19.22	0.00	19.76	10.20	0.323	0.64	0.49	4.507	A
C	7.47	37.36	7.50	8.76	16.87	0.00	23.27	14.46	0.321	0.62	0.48	3.811	A
D	18.86	94.32	18.96	16.57	7.80	0.00	34.02	30.08	0.555	1.77	1.28	4.013	A
E	0.00	0.00	0.00	0.00	26.76	0.00	11.29	3.94	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.66	15.62	9.40	0.00	38.22	33.82	0.383	0.71	0.63	2.549	A
B	5.98	29.91	5.99	6.07	17.98	0.00	20.36	10.20	0.294	0.49	0.42	4.183	A
C	7.00	35.02	7.02	8.19	15.79	0.00	23.84	14.46	0.294	0.48	0.42	3.568	A
D	17.68	88.40	17.72	15.51	7.29	0.00	34.31	30.08	0.515	1.28	1.09	3.628	A
E	0.00	0.00	0.00	0.00	25.01	0.00	12.01	3.94	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.64	15.59	9.38	0.00	38.24	33.82	0.383	0.63	0.62	2.544	A
B	5.98	29.91	5.98	6.06	17.96	0.00	20.37	10.20	0.294	0.42	0.42	4.173	A
C	7.00	35.02	7.00	8.18	15.76	0.00	23.85	14.46	0.294	0.42	0.42	3.561	A
D	17.68	88.40	17.68	15.49	7.28	0.00	34.32	30.08	0.515	1.09	1.08	3.610	A
E	0.00	0.00	0.00	0.00	24.97	0.00	12.03	3.94	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.64	73.20	14.64	15.59	9.38	0.00	38.24	33.82	0.383	0.62	0.62	2.542	A
B	5.98	29.91	5.98	6.06	17.96	0.00	20.37	10.20	0.294	0.42	0.42	4.171	A
C	7.00	35.02	7.00	8.18	15.76	0.00	23.85	14.46	0.294	0.42	0.42	3.563	A
D	17.68	88.40	17.68	15.49	7.28	0.00	34.32	30.08	0.515	1.08	1.07	3.607	A
E	0.00	0.00	0.00	0.00	24.96	0.00	12.03	3.94	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.92	0.58	2.511	A	A
B	1.91	0.38	4.106	A	A
C	1.93	0.39	3.516	A	A
D	4.84	0.97	3.511	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.07	0.61	2.542	A	A
B	2.05	0.41	4.170	A	A
C	2.05	0.41	3.560	A	A
D	5.22	1.04	3.605	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.08	0.62	2.542	A	A
B	2.06	0.41	4.170	A	A
C	2.06	0.41	3.560	A	A
D	5.26	1.05	3.605	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.39	0.68	2.696	A	A
B	2.28	0.46	4.464	A	A
C	2.27	0.45	3.785	A	A
D	5.88	1.18	3.938	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.23	0.85	3.042	A	A
B	2.89	0.58	5.160	A	A
C	2.84	0.57	4.300	A	A
D	7.76	1.55	4.768	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.21	1.04	3.438	A	A
B	3.65	0.73	6.002	A	A
C	3.53	0.71	4.902	A	A
D	10.32	2.06	5.891	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.21	1.24	3.847	A	A
B	4.48	0.90	6.921	A	A
C	4.24	0.85	5.530	A	A
D	13.42	2.68	7.271	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.11	1.42	4.206	A	A
B	5.26	1.05	7.769	A	A
C	4.89	0.98	6.107	A	A
D	16.73	3.35	8.731	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.72	1.54	4.429	A	A
B	5.83	1.17	8.326	A	A
C	5.34	1.07	6.445	A	A
D	19.53	3.91	9.854	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.95	1.59	4.448	A	A
B	6.06	1.21	8.385	A	A
C	5.52	1.10	6.475	A	A
D	20.97	4.19	10.123	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.83	1.57	4.255	A	A
B	5.99	1.20	7.911	A	A
C	5.44	1.09	6.161	A	A
D	21.04	4.21	9.338	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.01	1.40	3.915	A	A
B	5.29	1.06	7.098	A	A
C	4.86	0.97	5.628	A	A
D	17.92	3.58	7.928	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.85	1.17	3.492	A	A
B	4.28	0.86	6.141	A	A
C	4.02	0.80	4.980	A	A
D	13.21	2.64	6.287	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.69	0.94	3.077	A	A
B	3.32	0.66	5.248	A	A
C	3.20	0.64	4.354	A	A
D	9.42	1.88	4.962	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.68	0.74	2.714	A	A
B	2.53	0.51	4.507	A	A
C	2.49	0.50	3.811	A	A
D	6.72	1.34	4.013	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.21	0.64	2.549	A	A
B	2.17	0.43	4.183	A	A
C	2.16	0.43	3.568	A	A
D	5.61	1.12	3.628	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.13	0.63	2.544	A	A
B	2.11	0.42	4.173	A	A
C	2.10	0.42	3.561	A	A
D	5.40	1.08	3.610	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.12	0.62	2.542	A	A
B	2.10	0.42	4.171	A	A
C	2.09	0.42	3.563	A	A
D	5.37	1.07	3.607	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A213 Friday PM do nothing + committed development 2020 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:48:31

» Year 2020 Friday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday Peak Hour + committed				
Arm A	2.75	6.98	0.74	A	6 % [Arm D]
Arm B	2.17	14.21	0.70	B	
Arm C	2.08	10.00	0.68	A	
Arm D	8.00	18.24	0.91	C	
Arm E	0.51	15.49	0.35	C	

Values shown are the maximum values 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.

"D1 - Year 2020 Friday Peak Hour + committed, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:48:28

File summary

Title	3167A213 Year 2020, Friday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2020 Friday Peak Hour + committed, AM	Year 2020 Friday Peak Hour + committed	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				12.73	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	6	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.52	100.000
B	ONE HOUR	✓	8.48	100.000
C	ONE HOUR	✓	11.42	100.000
D	ONE HOUR	✓	24.87	100.000
E	ONE HOUR	✓	1.80	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.067	0.800	5.217	14.050	0.383
	B	2.467	0.000	2.383	3.567	0.067
	C	4.817	2.550	0.000	3.900	0.150
	D	12.183	5.850	6.450	0.000	0.383
	E	0.700	0.267	0.167	0.667	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.05	0.04	0.24	0.65	0.02
	B	0.29	0.00	0.28	0.42	0.01
	C	0.42	0.22	0.00	0.34	0.01
	D	0.49	0.24	0.26	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.74	6.98	2.75	A	19.78	1779.77	135.03	4.55	1.50	135.04	4.55
B	0.70	14.21	2.17	B	7.80	701.71	97.30	8.32	1.08	97.30	8.32
C	0.68	10.00	2.08	A	10.49	944.34	100.74	6.40	1.12	100.75	6.40
D	0.91	18.24	8.00	C	22.85	2056.87	301.99	8.81	3.36	302.01	8.81
E	0.35	15.49	0.51	C	1.65	148.89	24.14	9.73	0.27	24.14	9.73

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.14	15.86	11.91	0.00	36.67	31.15	0.444	0.00	0.79	2.900	A
B	6.42	32.12	6.32	7.07	20.97	0.00	18.91	9.90	0.340	0.00	0.50	4.729	A
C	8.64	43.22	8.53	10.63	16.66	0.00	23.38	15.74	0.370	0.00	0.57	4.012	A
D	18.83	94.14	18.58	16.60	8.59	0.00	33.56	29.63	0.561	0.00	1.24	3.943	A
E	1.36	6.81	1.34	0.74	26.44	0.00	11.42	4.33	0.119	0.00	0.13	5.932	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.29	16.07	12.07	0.00	36.57	31.15	0.446	0.79	0.80	2.958	A
B	6.42	32.12	6.42	7.17	21.20	0.00	18.81	9.90	0.342	0.50	0.51	4.843	A
C	8.64	43.22	8.64	10.76	16.86	0.00	23.27	15.74	0.371	0.57	0.58	4.099	A
D	18.83	94.14	18.82	16.79	8.71	0.00	33.50	29.63	0.562	1.24	1.26	4.087	A
E	1.36	6.81	1.36	0.74	26.79	0.00	11.28	4.33	0.121	0.13	0.14	6.049	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.29	16.08	12.08	0.00	36.56	31.15	0.446	0.80	0.80	2.959	A
B	6.42	32.12	6.42	7.17	21.20	0.00	18.80	9.90	0.342	0.51	0.51	4.845	A
C	8.64	43.22	8.64	10.76	16.86	0.00	23.27	15.74	0.371	0.58	0.59	4.101	A
D	18.83	94.14	18.83	16.80	8.71	0.00	33.49	29.63	0.562	1.26	1.27	4.089	A
E	1.36	6.81	1.36	0.74	26.79	0.00	11.28	4.33	0.121	0.14	0.14	6.050	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.38	86.91	17.36	17.12	12.86	0.00	36.08	31.15	0.482	0.80	0.91	3.200	A
B	6.85	34.27	6.84	7.63	22.58	0.00	18.14	9.90	0.378	0.51	0.59	5.309	A
C	9.22	46.12	9.21	11.46	17.96	0.00	22.69	15.74	0.406	0.59	0.67	4.441	A
D	20.09	100.44	20.05	17.89	9.27	0.00	33.17	29.63	0.606	1.27	1.49	4.552	A
E	1.45	7.27	1.45	0.79	28.53	0.00	10.57	4.33	0.138	0.14	0.16	6.577	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.45	97.27	19.40	19.10	14.34	0.00	35.16	31.15	0.553	0.91	1.21	3.793	A
B	7.67	38.35	7.63	8.52	25.22	0.00	16.87	9.90	0.455	0.59	0.80	6.462	A
C	10.32	51.61	10.28	12.79	20.06	0.00	21.59	15.74	0.478	0.67	0.89	5.283	A
D	22.48	112.42	22.36	19.98	10.35	0.00	32.55	29.63	0.691	1.49	2.11	5.810	A
E	1.63	8.14	1.62	0.89	31.83	0.00	9.22	4.33	0.177	0.16	0.21	7.882	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.29	106.44	21.22	20.87	15.67	0.00	34.34	31.15	0.620	1.21	1.57	4.542	A
B	8.39	41.97	8.34	9.31	27.58	0.00	15.73	9.90	0.534	0.80	1.09	8.044	A
C	11.30	56.48	11.24	13.98	21.93	0.00	20.60	15.74	0.548	0.89	1.17	6.367	A
D	24.60	123.02	24.42	21.85	11.32	0.00	31.99	29.63	0.769	2.11	3.04	7.708	A
E	1.78	8.90	1.77	0.97	34.77	0.00	8.01	4.33	0.222	0.21	0.28	9.593	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.78	113.89	22.69	22.29	16.73	0.00	33.68	31.15	0.676	1.57	1.99	5.411	A
B	8.98	44.90	8.91	9.94	29.49	0.00	14.81	9.90	0.606	1.09	1.44	10.020	B
C	12.09	60.43	12.02	14.94	23.45	0.00	19.80	15.74	0.610	1.17	1.48	7.640	A
D	26.32	131.62	26.07	23.37	12.11	0.00	31.54	29.63	0.835	3.04	4.33	10.380	B
E	1.91	9.53	1.89	1.03	37.14	0.00	7.04	4.33	0.271	0.28	0.35	11.601	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.83	119.13	23.75	23.30	17.48	0.00	33.22	31.15	0.717	1.99	2.40	6.264	A
B	9.39	46.97	9.32	10.39	30.84	0.00	14.16	9.90	0.663	1.44	1.80	12.153	B
C	12.64	63.21	12.58	15.62	24.54	0.00	19.22	15.74	0.658	1.48	1.80	8.915	A
D	27.54	137.68	27.22	24.45	12.67	0.00	31.21	29.63	0.882	4.33	5.90	13.668	B
E	1.99	9.97	1.98	1.08	38.81	0.00	6.36	4.33	0.314	0.35	0.43	13.636	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.37	121.85	24.31	23.87	17.91	0.00	32.96	31.15	0.739	2.40	2.68	6.863	A
B	9.61	48.04	9.55	10.64	31.58	0.00	13.80	9.90	0.696	1.80	2.09	13.813	B
C	12.93	64.65	12.89	16.00	25.13	0.00	18.91	15.74	0.684	1.80	2.02	9.834	A
D	28.16	140.82	27.88	25.05	12.97	0.00	31.04	29.63	0.907	5.90	7.34	16.761	C
E	2.04	10.19	2.03	1.11	39.74	0.00	5.97	4.33	0.341	0.43	0.49	15.136	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.37	121.85	24.36	23.97	17.99	0.00	32.90	31.15	0.741	2.68	2.75	6.981	A
B	9.61	48.04	9.59	10.69	31.66	0.00	13.76	9.90	0.698	2.09	2.17	14.211	B
C	12.93	64.65	12.92	16.06	25.19	0.00	18.88	15.74	0.685	2.02	2.08	10.001	A
D	28.16	140.82	28.03	25.10	13.01	0.00	31.02	29.63	0.908	7.34	8.00	18.241	C
E	2.04	10.19	2.04	1.11	39.93	0.00	5.90	4.33	0.346	0.49	0.51	15.495	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.83	119.13	23.84	23.53	17.67	0.00	33.10	31.15	0.720	2.75	2.66	6.516	A
B	9.39	46.97	9.41	10.49	31.03	0.00	14.07	9.90	0.668	2.17	2.11	12.979	B
C	12.64	63.21	12.65	15.75	24.68	0.00	19.15	15.74	0.660	2.08	2.02	9.287	A
D	27.54	137.68	27.55	24.59	12.75	0.00	31.17	29.63	0.884	8.00	7.96	16.918	C
E	1.99	9.97	2.00	1.09	39.20	0.00	6.20	4.33	0.322	0.51	0.49	14.317	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.78	113.89	22.86	22.74	17.11	0.00	33.45	31.15	0.681	2.66	2.24	5.725	A
B	8.98	44.90	9.06	10.14	29.83	0.00	14.64	9.90	0.613	2.11	1.70	10.936	B
C	12.09	60.43	12.15	15.20	23.70	0.00	19.67	15.74	0.614	2.02	1.68	8.072	A
D	26.32	131.62	26.73	23.60	12.25	0.00	31.45	29.63	0.837	7.96	5.94	13.620	B
E	1.91	9.53	1.92	1.05	37.93	0.00	6.72	4.33	0.284	0.49	0.41	12.552	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.29	106.44	21.39	21.30	16.03	0.00	34.12	31.15	0.624	2.24	1.72	4.758	A
B	8.39	41.97	8.49	9.50	27.93	0.00	15.56	9.90	0.539	1.70	1.23	8.595	A
C	11.30	56.48	11.38	14.24	22.18	0.00	20.47	15.74	0.552	1.68	1.28	6.658	A
D	24.60	123.02	25.05	22.09	11.47	0.00	31.91	29.63	0.771	5.94	3.70	9.243	A
E	1.78	8.90	1.80	0.98	35.53	0.00	7.70	4.33	0.231	0.41	0.31	10.212	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.45	97.27	19.54	19.39	14.58	0.00	35.02	31.15	0.556	1.72	1.28	3.899	A
B	7.67	38.35	7.74	8.64	25.48	0.00	16.74	9.90	0.458	1.23	0.88	6.720	A
C	10.32	51.61	10.39	12.97	20.25	0.00	21.48	15.74	0.480	1.28	0.95	5.440	A
D	22.48	112.42	22.75	20.17	10.47	0.00	32.48	29.63	0.692	3.70	2.38	6.324	A
E	1.63	8.14	1.64	0.90	32.32	0.00	9.01	4.33	0.181	0.31	0.23	8.160	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.38	86.91	17.45	17.27	12.98	0.00	36.00	31.15	0.483	1.28	0.95	3.244	A
B	6.85	34.27	6.90	7.70	22.73	0.00	18.07	9.90	0.379	0.88	0.63	5.400	A
C	9.22	46.12	9.27	11.56	18.08	0.00	22.63	15.74	0.408	0.95	0.70	4.510	A
D	20.09	100.44	20.25	18.01	9.34	0.00	33.13	29.63	0.606	2.38	1.60	4.714	A
E	1.45	7.27	1.47	0.80	28.79	0.00	10.46	4.33	0.139	0.23	0.17	6.679	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.32	16.12	12.11	0.00	36.54	31.15	0.446	0.95	0.82	2.970	A
B	6.42	32.12	6.44	7.19	21.24	0.00	18.78	9.90	0.342	0.63	0.53	4.871	A
C	8.64	43.22	8.66	10.79	16.90	0.00	23.25	15.74	0.372	0.70	0.60	4.120	A
D	18.83	94.14	18.88	16.83	8.73	0.00	33.48	29.63	0.562	1.60	1.32	4.127	A
E	1.36	6.81	1.37	0.75	26.87	0.00	11.25	4.33	0.121	0.17	0.14	6.078	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.29	16.08	12.08	0.00	36.56	31.15	0.446	0.82	0.81	2.960	A
B	6.42	32.12	6.42	7.17	21.20	0.00	18.80	9.90	0.342	0.53	0.53	4.848	A
C	8.64	43.22	8.65	10.77	16.86	0.00	23.27	15.74	0.371	0.60	0.60	4.103	A
D	18.83	94.14	18.83	16.80	8.71	0.00	33.49	29.63	0.562	1.32	1.30	4.096	A
E	1.36	6.81	1.36	0.74	26.80	0.00	11.28	4.33	0.121	0.14	0.14	6.052	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.29	81.46	16.29	16.08	12.08	0.00	36.56	31.15	0.446	0.81	0.81	2.961	A
B	6.42	32.12	6.42	7.17	21.20	0.00	18.80	9.90	0.342	0.53	0.52	4.848	A
C	8.64	43.22	8.65	10.77	16.86	0.00	23.27	15.74	0.371	0.60	0.60	4.103	A
D	18.83	94.14	18.83	16.80	8.71	0.00	33.49	29.63	0.562	1.30	1.30	4.093	A
E	1.36	6.81	1.36	0.74	26.79	0.00	11.28	4.33	0.121	0.14	0.14	6.053	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.73	0.75	2.900	A	A
B	2.35	0.47	4.729	A	A
C	2.70	0.54	4.012	A	A
D	5.75	1.15	3.943	A	A
E	0.62	0.12	5.932	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.96	0.79	2.958	A	A
B	2.54	0.51	4.843	A	A
C	2.90	0.58	4.099	A	A
D	6.27	1.25	4.087	A	A
E	0.67	0.13	6.049	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.99	0.80	2.959	A	A
B	2.57	0.51	4.845	A	A
C	2.93	0.59	4.101	A	A
D	6.34	1.27	4.089	A	A
E	0.68	0.14	6.050	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.45	0.89	3.200	A	A
B	2.88	0.58	5.309	A	A
C	3.26	0.65	4.441	A	A
D	7.18	1.44	4.552	A	A
E	0.76	0.15	6.577	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.79	1.16	3.793	A	A
B	3.82	0.76	6.462	A	A
C	4.24	0.85	5.283	A	A
D	9.88	1.98	5.810	A	A
E	1.00	0.20	7.882	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.50	1.50	4.542	A	A
B	5.12	1.02	8.044	A	A
C	5.53	1.11	6.367	A	A
D	13.95	2.79	7.708	A	A
E	1.31	0.26	9.593	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.46	1.89	5.411	A	A
B	6.72	1.34	10.020	B	B
C	7.02	1.40	7.640	A	A
D	19.55	3.91	10.380	B	B
E	1.68	0.34	11.601	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.41	2.28	6.264	A	A
B	8.45	1.69	12.153	B	B
C	8.53	1.71	8.915	A	A
D	26.55	5.31	13.668	B	B
E	2.06	0.41	13.636	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.92	2.58	6.863	A	A
B	9.93	1.99	13.813	B	B
C	9.73	1.95	9.834	A	A
D	33.70	6.74	16.761	C	B
E	2.36	0.47	15.136	C	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.60	2.72	6.981	A	A
B	10.68	2.14	14.211	B	B
C	10.28	2.06	10.001	A	A
D	38.52	7.70	18.241	C	B
E	2.51	0.50	15.495	C	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.49	2.70	6.516	A	A
B	10.68	2.14	12.979	B	B
C	10.22	2.05	9.287	A	A
D	39.88	7.98	16.918	C	B
E	2.49	0.50	14.317	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.70	2.34	5.725	A	A
B	9.02	1.80	10.936	B	B
C	8.83	1.77	8.072	A	A
D	32.59	6.52	13.620	B	B
E	2.17	0.43	12.552	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.06	1.81	4.758	A	A
B	6.60	1.32	8.595	A	A
C	6.79	1.36	6.658	A	A
D	20.53	4.11	9.243	A	A
E	1.65	0.33	10.212	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.72	1.34	3.899	A	A
B	4.65	0.93	6.720	A	A
C	5.02	1.00	5.440	A	A
D	12.91	2.58	6.324	A	A
E	1.20	0.24	8.160	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.95	0.99	3.244	A	A
B	3.30	0.66	5.400	A	A
C	3.68	0.74	4.510	A	A
D	8.49	1.70	4.714	A	A
E	0.87	0.17	6.679	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.20	0.84	2.970	A	A
B	2.74	0.55	4.871	A	A
C	3.10	0.62	4.120	A	A
D	6.86	1.37	4.127	A	A
E	0.73	0.15	6.078	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.07	0.81	2.960	A	A
B	2.64	0.53	4.848	A	A
C	3.00	0.60	4.103	A	A
D	6.55	1.31	4.096	A	A
E	0.70	0.14	6.052	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.05	0.81	2.961	A	A
B	2.62	0.52	4.848	A	A
C	2.98	0.60	4.103	A	A
D	6.50	1.30	4.093	A	A
E	0.69	0.14	6.053	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A214 Saturday do nothing + committed development 2020 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:50:31

» Year 2020 Saturday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour + committed				
Arm A	1.89	5.03	0.66	A	9 % [Arm D]
Arm B	1.55	10.10	0.62	B	
Arm C	1.35	7.48	0.58	A	
Arm D	6.19	14.13	0.88	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2020 Saturday Peak Hour + committed, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:50:27

File summary

Title	3167A214 Year 2020, Saturday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2020 Saturday Peak Hour + committed, AM	Year 2020 Saturday Peak Hour + committed	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				9.64	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	9	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.27	100.000
B	ONE HOUR	✓	8.38	100.000
C	ONE HOUR	✓	9.80	100.000
D	ONE HOUR	✓	24.68	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.883	4.067	14.067	0.000
	B	2.450	0.000	1.817	4.117	0.000
	C	4.267	2.133	0.000	3.400	0.000
	D	13.683	5.417	5.583	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.20	0.69	0.00
	B	0.29	0.00	0.22	0.49	0.00
	C	0.44	0.22	0.00	0.35	0.00
	D	0.55	0.22	0.23	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.66	5.03	1.89	A	18.63	1676.37	102.09	3.65	1.13	102.09	3.65
B	0.62	10.10	1.55	B	7.70	693.43	77.14	6.67	0.86	77.14	6.67
C	0.58	7.48	1.35	A	9.01	810.62	71.37	5.28	0.79	71.37	5.28
D	0.88	14.13	6.19	B	22.69	2041.70	254.35	7.47	2.83	254.37	7.48
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.21	16.19	9.82	0.00	37.96	33.77	0.404	0.00	0.67	2.623	A
B	6.35	31.74	6.26	6.31	18.72	0.00	20.00	10.17	0.317	0.00	0.46	4.338	A
C	7.42	37.10	7.33	8.58	16.40	0.00	23.52	14.51	0.316	0.00	0.45	3.684	A
D	18.69	93.45	18.46	16.17	7.55	0.00	34.16	30.14	0.547	0.00	1.18	3.767	A
E	0.00	0.00	0.00	0.00	26.01	0.00	11.60	3.96	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.34	16.39	9.94	0.00	37.89	33.77	0.405	0.67	0.68	2.661	A
B	6.35	31.74	6.35	6.38	18.90	0.00	19.91	10.17	0.319	0.46	0.46	4.422	A
C	7.42	37.10	7.42	8.68	16.57	0.00	23.43	14.51	0.317	0.45	0.46	3.747	A
D	18.69	93.45	18.69	16.34	7.65	0.00	34.11	30.14	0.548	1.18	1.19	3.888	A
E	0.00	0.00	0.00	0.00	26.33	0.00	11.47	3.96	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.35	16.39	9.94	0.00	37.89	33.77	0.405	0.68	0.68	2.661	A
B	6.35	31.74	6.35	6.39	18.90	0.00	19.91	10.17	0.319	0.46	0.46	4.423	A
C	7.42	37.10	7.42	8.68	16.57	0.00	23.43	14.51	0.317	0.46	0.46	3.747	A
D	18.69	93.45	18.69	16.34	7.65	0.00	34.11	30.14	0.548	1.19	1.20	3.890	A
E	0.00	0.00	0.00	0.00	26.34	0.00	11.46	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.37	81.86	16.36	17.46	10.59	0.00	37.49	33.77	0.437	0.68	0.76	2.836	A
B	6.77	33.86	6.76	6.80	20.14	0.00	19.31	10.17	0.351	0.46	0.53	4.775	A
C	7.92	39.58	7.90	9.25	17.66	0.00	22.85	14.51	0.346	0.46	0.52	4.010	A
D	19.94	99.70	19.90	17.41	8.15	0.00	33.82	30.14	0.590	1.20	1.40	4.296	A
E	0.00	0.00	0.00	0.00	28.05	0.00	10.76	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.32	91.62	18.28	19.49	11.82	0.00	36.72	33.77	0.499	0.76	0.98	3.244	A
B	7.58	37.90	7.55	7.59	22.51	0.00	18.17	10.17	0.417	0.53	0.69	5.627	A
C	8.86	44.30	8.83	10.33	19.73	0.00	21.76	14.51	0.407	0.52	0.67	4.628	A
D	22.32	111.59	22.21	19.46	9.10	0.00	33.27	30.14	0.671	1.40	1.94	5.365	A
E	0.00	0.00	0.00	0.00	31.31	0.00	9.43	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.05	100.26	20.00	21.30	12.92	0.00	36.04	33.77	0.556	0.98	1.22	3.727	A
B	8.29	41.47	8.25	8.30	24.62	0.00	17.16	10.17	0.483	0.69	0.90	6.703	A
C	9.70	48.48	9.66	11.29	21.58	0.00	20.78	14.51	0.467	0.67	0.85	5.374	A
D	24.42	122.11	24.27	21.29	9.95	0.00	32.78	30.14	0.745	1.94	2.71	6.910	A
E	0.00	0.00	0.00	0.00	34.22	0.00	8.24	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.45	107.27	21.40	22.77	13.80	0.00	35.49	33.77	0.604	1.22	1.48	4.239	A
B	8.87	44.37	8.83	8.87	26.33	0.00	16.33	10.17	0.543	0.90	1.13	7.935	A
C	10.37	51.87	10.34	12.07	23.09	0.00	19.99	14.51	0.519	0.85	1.04	6.185	A
D	26.13	130.65	25.93	22.78	10.65	0.00	32.38	30.14	0.807	2.71	3.72	8.961	A
E	0.00	0.00	0.00	0.00	36.58	0.00	7.27	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.44	112.21	22.40	23.82	14.43	0.00	35.11	33.77	0.639	1.48	1.71	4.699	A
B	9.28	46.42	9.24	9.28	27.55	0.00	15.74	10.17	0.590	1.13	1.36	9.137	A
C	10.85	54.26	10.82	12.63	24.16	0.00	19.42	14.51	0.559	1.04	1.21	6.923	A
D	27.33	136.67	27.10	23.83	11.15	0.00	32.09	30.14	0.852	3.72	4.87	11.337	B
E	0.00	0.00	0.00	0.00	38.25	0.00	6.59	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.95	114.77	22.92	24.39	14.78	0.00	34.89	33.77	0.658	1.71	1.86	4.995	A
B	9.49	47.47	9.46	9.50	28.21	0.00	15.43	10.17	0.615	1.36	1.51	9.972	A
C	11.10	55.50	11.08	12.93	24.74	0.00	19.12	14.51	0.581	1.21	1.33	7.423	A
D	27.96	139.78	27.76	24.40	11.41	0.00	31.94	30.14	0.875	4.87	5.82	13.385	B
E	0.00	0.00	0.00	0.00	39.18	0.00	6.21	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.95	114.77	22.95	24.48	14.84	0.00	34.85	33.77	0.659	1.86	1.89	5.032	A
B	9.49	47.47	9.49	9.53	28.25	0.00	15.41	10.17	0.616	1.51	1.55	10.100	B
C	11.10	55.50	11.09	12.97	24.77	0.00	19.10	14.51	0.581	1.33	1.35	7.479	A
D	27.96	139.78	27.88	24.44	11.43	0.00	31.92	30.14	0.874	5.82	6.19	14.133	B
E	0.00	0.00	0.00	0.00	39.32	0.00	6.15	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.44	112.21	22.45	23.99	14.55	0.00	35.03	33.77	0.641	1.89	1.83	4.782	A
B	9.28	46.42	9.29	9.34	27.66	0.00	15.69	10.17	0.592	1.55	1.50	9.417	A
C	10.85	54.26	10.86	12.71	24.25	0.00	19.38	14.51	0.560	1.35	1.31	7.060	A
D	27.33	136.67	27.35	23.92	11.19	0.00	32.06	30.14	0.853	6.19	6.11	12.976	B
E	0.00	0.00	0.00	0.00	38.54	0.00	6.47	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.45	107.27	21.50	23.11	14.04	0.00	35.35	33.77	0.607	1.83	1.59	4.351	A
B	8.87	44.37	8.92	9.00	26.54	0.00	16.23	10.17	0.547	1.50	1.26	8.272	A
C	10.37	51.87	10.41	12.22	23.24	0.00	19.91	14.51	0.521	1.31	1.13	6.344	A
D	26.13	130.65	26.41	22.92	10.73	0.00	32.33	30.14	0.808	6.11	4.72	10.630	B
E	0.00	0.00	0.00	0.00	37.14	0.00	7.04	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.05	100.26	20.11	21.63	13.14	0.00	35.91	33.77	0.558	1.59	1.30	3.813	A
B	8.29	41.47	8.35	8.42	24.83	0.00	17.06	10.17	0.486	1.26	0.98	6.941	A
C	9.70	48.48	9.74	11.44	21.74	0.00	20.70	14.51	0.468	1.13	0.91	5.497	A
D	24.42	122.11	24.73	21.44	10.04	0.00	32.73	30.14	0.746	4.72	3.17	7.778	A
E	0.00	0.00	0.00	0.00	34.77	0.00	8.01	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.32	91.62	18.38	19.72	11.97	0.00	36.63	33.77	0.500	1.30	1.02	3.297	A
B	7.58	37.90	7.63	7.68	22.67	0.00	18.10	10.17	0.419	0.98	0.74	5.759	A
C	8.86	44.30	8.90	10.44	19.87	0.00	21.69	14.51	0.409	0.91	0.71	4.707	A
D	22.32	111.59	22.52	19.59	9.18	0.00	33.22	30.14	0.672	3.17	2.15	5.714	A
E	0.00	0.00	0.00	0.00	31.70	0.00	9.27	3.96	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.37	81.86	16.42	17.59	10.68	0.00	37.43	33.77	0.437	1.02	0.79	2.861	A
B	6.77	33.86	6.81	6.85	20.24	0.00	19.27	10.17	0.352	0.74	0.55	4.833	A
C	7.92	39.58	7.95	9.31	17.74	0.00	22.81	14.51	0.347	0.71	0.54	4.049	A
D	19.94	99.70	20.07	17.50	8.19	0.00	33.79	30.14	0.590	2.15	1.49	4.416	A
E	0.00	0.00	0.00	0.00	28.27	0.00	10.67	3.96	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.37	16.43	9.97	0.00	37.87	33.77	0.405	0.79	0.69	2.668	A
B	6.35	31.74	6.36	6.40	18.93	0.00	19.90	10.17	0.319	0.55	0.48	4.440	A
C	7.42	37.10	7.43	8.70	16.60	0.00	23.41	14.51	0.317	0.54	0.47	3.761	A
D	18.69	93.45	18.74	16.37	7.66	0.00	34.10	30.14	0.548	1.49	1.24	3.922	A
E	0.00	0.00	0.00	0.00	26.40	0.00	11.44	3.96	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.35	16.40	9.95	0.00	37.88	33.77	0.405	0.69	0.69	2.662	A
B	6.35	31.74	6.35	6.39	18.91	0.00	19.91	10.17	0.319	0.48	0.47	4.426	A
C	7.42	37.10	7.42	8.68	16.57	0.00	23.42	14.51	0.317	0.47	0.47	3.748	A
D	18.69	93.45	18.69	16.34	7.65	0.00	34.10	30.14	0.548	1.24	1.23	3.896	A
E	0.00	0.00	0.00	0.00	26.34	0.00	11.46	3.96	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.35	76.73	15.35	16.39	9.95	0.00	37.88	33.77	0.405	0.69	0.68	2.661	A
B	6.35	31.74	6.35	6.39	18.91	0.00	19.91	10.17	0.319	0.47	0.47	4.423	A
C	7.42	37.10	7.42	8.68	16.57	0.00	23.43	14.51	0.317	0.47	0.47	3.751	A
D	18.69	93.45	18.69	16.34	7.65	0.00	34.10	30.14	0.548	1.23	1.22	3.895	A
E	0.00	0.00	0.00	0.00	26.34	0.00	11.46	3.96	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.19	0.64	2.623	A	A
B	2.14	0.43	4.338	A	A
C	2.14	0.43	3.684	A	A
D	5.47	1.09	3.767	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.36	0.67	2.661	A	A
B	2.30	0.46	4.422	A	A
C	2.28	0.46	3.747	A	A
D	5.94	1.19	3.888	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.38	0.68	2.661	A	A
B	2.32	0.46	4.423	A	A
C	2.30	0.46	3.747	A	A
D	5.99	1.20	3.890	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.74	0.75	2.836	A	A
B	2.57	0.51	4.775	A	A
C	2.54	0.51	4.010	A	A
D	6.75	1.35	4.296	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.71	0.94	3.244	A	A
B	3.32	0.66	5.627	A	A
C	3.23	0.65	4.628	A	A
D	9.13	1.83	5.365	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.89	1.18	3.727	A	A
B	4.29	0.86	6.703	A	A
C	4.07	0.81	5.374	A	A
D	12.57	2.51	6.910	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.13	1.43	4.239	A	A
B	5.38	1.08	7.935	A	A
C	4.98	1.00	6.185	A	A
D	17.05	3.41	8.961	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.26	1.65	4.699	A	A
B	6.47	1.29	9.137	A	A
C	5.84	1.17	6.923	A	A
D	22.29	4.46	11.337	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.06	1.81	4.995	A	A
B	7.30	1.46	9.972	A	A
C	6.46	1.29	7.423	A	A
D	27.22	5.44	13.385	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.38	1.88	5.032	A	A
B	7.67	1.53	10.100	B	B
C	6.71	1.34	7.479	A	A
D	30.16	6.03	14.133	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.25	1.85	4.782	A	A
B	7.60	1.52	9.417	A	A
C	6.63	1.33	7.060	A	A
D	30.75	6.15	12.976	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.22	1.64	4.351	A	A
B	6.61	1.32	8.272	A	A
C	5.85	1.17	6.344	A	A
D	25.54	5.11	10.630	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.74	1.35	3.813	A	A
B	5.18	1.04	6.941	A	A
C	4.74	0.95	5.497	A	A
D	17.35	3.47	7.778	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.30	1.06	3.297	A	A
B	3.90	0.78	5.759	A	A
C	3.69	0.74	4.707	A	A
D	11.55	2.31	5.714	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.08	0.82	2.861	A	A
B	2.89	0.58	4.833	A	A
C	2.81	0.56	4.049	A	A
D	7.87	1.57	4.416	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.53	0.71	2.668	A	A
B	2.46	0.49	4.440	A	A
C	2.42	0.48	3.761	A	A
D	6.44	1.29	3.922	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.44	0.69	2.662	A	A
B	2.37	0.47	4.426	A	A
C	2.35	0.47	3.748	A	A
D	6.17	1.23	3.896	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.42	0.68	2.661	A	A
B	2.36	0.47	4.423	A	A
C	2.34	0.47	3.751	A	A
D	6.13	1.23	3.895	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A215 Friday PM total traffic with development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:52:57

» Year 2016 Friday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday Peak Hour + committed + development				
Arm A	2.64	6.55	0.73	A	13 % [Arm D]
Arm B	1.73	11.82	0.64	B	
Arm C	1.73	8.71	0.64	A	
Arm D	4.75	11.60	0.84	B	
Arm E	0.39	12.63	0.29	B	

Values shown are the maximum values 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.

"D1 - Year 2016 Friday Peak Hour + committed + development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:52:53

File summary

Title	3167A215 Year 2020, Friday PM peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2016 Friday Peak Hour + committed + development, AM	Year 2016 Friday Peak Hour + committed + development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				9.48	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	13	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.97	100.000
B	ONE HOUR	✓	8.03	100.000
C	ONE HOUR	✓	10.83	100.000
D	ONE HOUR	✓	22.83	100.000
E	ONE HOUR	✓	1.70	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.383	0.967	5.567	13.683	0.367
	B	2.417	0.000	2.250	3.300	0.067
	C	4.967	2.400	0.000	3.333	0.133
	D	11.533	5.417	5.517	0.000	0.367
	E	0.667	0.250	0.150	0.633	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.25	0.62	0.02
	B	0.30	0.00	0.28	0.41	0.01
	C	0.46	0.22	0.00	0.31	0.01
	D	0.51	0.24	0.24	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.73	6.55	2.64	A	20.19	1816.99	132.03	4.36	1.47	132.04	4.36
B	0.64	11.82	1.73	B	7.38	664.48	81.87	7.39	0.91	81.88	7.39
C	0.64	8.71	1.73	A	9.96	896.09	87.32	5.85	0.97	87.33	5.85
D	0.84	11.60	4.75	B	20.99	1888.68	207.50	6.59	2.31	207.52	6.59
E	0.29	12.63	0.39	B	1.56	140.62	19.87	8.48	0.22	19.87	8.48

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.48	15.68	10.74	0.00	37.39	31.74	0.445	0.00	0.79	2.849	A
B	6.08	30.41	5.99	6.76	20.46	0.00	19.16	10.11	0.317	0.00	0.45	4.526	A
C	8.20	41.01	8.10	10.09	16.36	0.00	23.54	15.76	0.349	0.00	0.52	3.863	A
D	17.29	86.45	17.08	15.69	8.77	0.00	33.46	28.97	0.517	0.00	1.04	3.620	A
E	1.29	6.44	1.26	0.70	25.15	0.00	11.95	4.12	0.108	0.00	0.12	5.602	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.63	15.87	10.88	0.00	37.31	31.74	0.446	0.79	0.80	2.901	A
B	6.08	30.41	6.08	6.84	20.67	0.00	19.06	10.11	0.319	0.45	0.46	4.620	A
C	8.20	41.01	8.20	10.21	16.54	0.00	23.44	15.76	0.350	0.52	0.53	3.937	A
D	17.29	86.45	17.29	15.86	8.88	0.00	33.39	28.97	0.518	1.04	1.06	3.724	A
E	1.29	6.44	1.29	0.71	25.46	0.00	11.82	4.12	0.109	0.12	0.12	5.694	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.63	15.87	10.88	0.00	37.31	31.74	0.446	0.80	0.80	2.901	A
B	6.08	30.41	6.08	6.84	20.67	0.00	19.06	10.11	0.319	0.46	0.46	4.623	A
C	8.20	41.01	8.20	10.21	16.54	0.00	23.44	15.76	0.350	0.53	0.53	3.937	A
D	17.29	86.45	17.29	15.86	8.88	0.00	33.39	28.97	0.518	1.06	1.06	3.724	A
E	1.29	6.44	1.29	0.71	25.47	0.00	11.82	4.12	0.109	0.12	0.12	5.695	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.75	88.73	17.72	16.91	11.59	0.00	36.87	31.74	0.481	0.80	0.91	3.129	A
B	6.49	32.45	6.48	7.29	22.02	0.00	18.41	10.11	0.353	0.46	0.53	5.021	A
C	8.75	43.76	8.74	10.87	17.62	0.00	22.87	15.76	0.383	0.53	0.61	4.242	A
D	18.45	92.23	18.41	16.90	9.46	0.00	33.06	28.97	0.558	1.06	1.23	4.084	A
E	1.37	6.87	1.37	0.75	27.12	0.00	11.14	4.12	0.123	0.12	0.14	6.139	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.86	99.31	19.80	18.88	12.93	0.00	36.03	31.74	0.551	0.91	1.20	3.682	A
B	7.26	36.32	7.23	8.13	24.60	0.00	17.16	10.11	0.423	0.53	0.71	6.014	A
C	9.80	48.98	9.76	12.14	19.69	0.00	21.78	15.76	0.450	0.61	0.80	4.973	A
D	20.65	103.23	20.55	18.88	10.57	0.00	32.42	28.97	0.637	1.23	1.68	5.014	A
E	1.54	7.69	1.53	0.84	30.28	0.00	9.85	4.12	0.156	0.14	0.18	7.203	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.73	108.67	21.66	20.64	14.14	0.00	35.29	31.74	0.616	1.20	1.55	4.378	A
B	7.95	39.74	7.90	8.89	26.91	0.00	16.05	10.11	0.495	0.71	0.94	7.314	A
C	10.72	53.59	10.67	13.28	21.53	0.00	20.81	15.76	0.515	0.80	1.02	5.889	A
D	22.59	112.96	22.47	20.65	11.56	0.00	31.85	28.97	0.709	1.68	2.29	6.298	A
E	1.68	8.41	1.67	0.92	33.11	0.00	8.69	4.12	0.194	0.18	0.23	8.519	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.25	116.27	23.17	22.07	15.12	0.00	34.68	31.74	0.670	1.55	1.95	5.171	A
B	8.50	42.52	8.45	9.51	28.78	0.00	15.15	10.11	0.561	0.94	1.21	8.867	A
C	11.47	57.34	11.42	14.20	23.03	0.00	20.02	15.76	0.573	1.02	1.28	6.924	A
D	24.17	120.86	24.02	22.09	12.36	0.00	31.39	28.97	0.770	2.29	3.06	7.929	A
E	1.80	9.00	1.79	0.98	35.40	0.00	7.75	4.12	0.232	0.23	0.29	10.034	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.33	121.63	24.25	23.09	15.81	0.00	34.25	31.74	0.710	1.95	2.32	5.940	A
B	8.90	44.48	8.84	9.95	30.11	0.00	14.51	10.11	0.613	1.21	1.48	10.452	B
C	12.00	59.98	11.95	14.86	24.10	0.00	19.46	15.76	0.617	1.28	1.52	7.920	A
D	25.29	126.42	25.12	23.11	12.94	0.00	31.06	28.97	0.814	3.06	3.88	9.733	A
E	1.88	9.41	1.87	1.03	37.03	0.00	7.09	4.12	0.266	0.29	0.35	11.473	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.88	124.40	24.83	23.65	16.20	0.00	34.01	31.74	0.731	2.32	2.58	6.469	A
B	9.10	45.49	9.06	10.19	30.84	0.00	14.16	10.11	0.643	1.48	1.68	11.612	B
C	12.27	61.35	12.24	15.22	24.68	0.00	19.15	15.76	0.641	1.52	1.69	8.607	A
D	25.86	129.31	25.73	23.67	13.25	0.00	30.88	28.97	0.838	3.88	4.53	11.182	B
E	1.93	9.63	1.92	1.05	37.93	0.00	6.72	4.12	0.287	0.35	0.39	12.470	B

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.88	124.40	24.87	23.72	16.25	0.00	33.98	31.74	0.732	2.58	2.64	6.554	A
B	9.10	45.49	9.09	10.22	30.90	0.00	14.13	10.11	0.644	1.68	1.73	11.820	B
C	12.27	61.35	12.26	15.25	24.73	0.00	19.12	15.76	0.642	1.69	1.73	8.709	A
D	25.86	129.31	25.82	23.71	13.28	0.00	30.86	28.97	0.838	4.53	4.75	11.595	B
E	1.93	9.63	1.92	1.06	38.04	0.00	6.67	4.12	0.289	0.39	0.39	12.631	B

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.33	121.63	24.34	23.24	15.92	0.00	34.18	31.74	0.712	2.64	2.55	6.126	A
B	8.90	44.48	8.91	10.01	30.25	0.00	14.44	10.11	0.616	1.73	1.67	10.902	B
C	12.00	59.98	12.01	14.94	24.22	0.00	19.40	15.76	0.619	1.73	1.68	8.153	A
D	25.29	126.42	25.30	23.22	13.01	0.00	31.02	28.97	0.815	4.75	4.65	10.643	B
E	1.88	9.41	1.89	1.03	37.28	0.00	6.99	4.12	0.270	0.39	0.38	11.779	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.25	116.27	23.34	22.34	15.32	0.00	34.56	31.74	0.673	2.55	2.15	5.393	A
B	8.50	42.52	8.56	9.62	29.03	0.00	15.03	10.11	0.566	1.67	1.38	9.378	A
C	11.47	57.34	11.52	14.36	23.23	0.00	19.91	15.76	0.576	1.68	1.42	7.204	A
D	24.17	120.86	24.36	22.27	12.48	0.00	31.32	28.97	0.772	4.65	3.69	8.892	A
E	1.80	9.00	1.81	0.99	35.85	0.00	7.57	4.12	0.238	0.38	0.32	10.447	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.73	108.67	21.83	20.91	14.34	0.00	35.16	31.74	0.618	2.15	1.67	4.535	A
B	7.95	39.74	8.02	9.01	27.16	0.00	15.93	10.11	0.499	1.38	1.04	7.645	A
C	10.72	53.59	10.78	13.44	21.74	0.00	20.70	15.76	0.518	1.42	1.11	6.089	A
D	22.59	112.96	22.81	20.84	11.68	0.00	31.78	28.97	0.711	3.69	2.62	6.846	A
E	1.68	8.41	1.70	0.93	33.56	0.00	8.51	4.12	0.198	0.32	0.25	8.826	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.86	99.31	19.94	19.09	13.08	0.00	35.94	31.74	0.553	1.67	1.27	3.769	A
B	7.26	36.32	7.32	8.22	24.80	0.00	17.07	10.11	0.426	1.04	0.76	6.191	A
C	9.80	48.98	9.85	12.27	19.86	0.00	21.69	15.76	0.452	1.11	0.85	5.089	A
D	20.65	103.23	20.80	19.04	10.67	0.00	32.36	28.97	0.638	2.62	1.84	5.261	A
E	1.54	7.69	1.55	0.85	30.62	0.00	9.71	4.12	0.158	0.25	0.19	7.362	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.75	88.73	17.81	17.03	11.67	0.00	36.81	31.74	0.482	1.27	0.95	3.169	A
B	6.49	32.45	6.53	7.34	22.15	0.00	18.35	10.11	0.354	0.76	0.56	5.094	A
C	8.75	43.76	8.79	10.95	17.73	0.00	22.81	15.76	0.384	0.85	0.64	4.294	A
D	18.45	92.23	18.55	17.00	9.53	0.00	33.02	28.97	0.559	1.84	1.30	4.177	A
E	1.37	6.87	1.38	0.76	27.32	0.00	11.06	4.12	0.124	0.19	0.14	6.204	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.66	15.91	10.90	0.00	37.29	31.74	0.446	0.95	0.82	2.911	A
B	6.08	30.41	6.10	6.86	20.71	0.00	19.04	10.11	0.319	0.56	0.48	4.641	A
C	8.20	41.01	8.22	10.23	16.58	0.00	23.42	15.76	0.350	0.64	0.55	3.951	A
D	17.29	86.45	17.33	15.89	8.90	0.00	33.38	28.97	0.518	1.30	1.10	3.747	A
E	1.29	6.44	1.29	0.71	25.53	0.00	11.80	4.12	0.109	0.14	0.12	5.715	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.63	15.88	10.88	0.00	37.31	31.74	0.446	0.82	0.81	2.902	A
B	6.08	30.41	6.08	6.84	20.67	0.00	19.06	10.11	0.319	0.48	0.47	4.626	A
C	8.20	41.01	8.20	10.21	16.55	0.00	23.44	15.76	0.350	0.55	0.54	3.939	A
D	17.29	86.45	17.29	15.86	8.89	0.00	33.39	28.97	0.518	1.10	1.09	3.727	A
E	1.29	6.44	1.29	0.71	25.47	0.00	11.82	4.12	0.109	0.12	0.12	5.696	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.63	83.17	16.63	15.88	10.88	0.00	37.31	31.74	0.446	0.81	0.81	2.902	A
B	6.08	30.41	6.08	6.84	20.67	0.00	19.06	10.11	0.319	0.47	0.47	4.625	A
C	8.20	41.01	8.20	10.21	16.55	0.00	23.44	15.76	0.350	0.54	0.54	3.938	A
D	17.29	86.45	17.29	15.86	8.88	0.00	33.39	28.97	0.518	1.09	1.08	3.729	A
E	1.29	6.44	1.29	0.71	25.47	0.00	11.82	4.12	0.109	0.12	0.12	5.698	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.74	0.75	2.849	A	A
B	2.13	0.43	4.526	A	A
C	2.47	0.49	3.863	A	A
D	4.88	0.98	3.620	A	A
E	0.56	0.11	5.602	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.97	0.79	2.901	A	A
B	2.30	0.46	4.620	A	A
C	2.65	0.53	3.937	A	A
D	5.26	1.05	3.724	A	A
E	0.60	0.12	5.694	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.99	0.80	2.901	A	A
B	2.32	0.46	4.623	A	A
C	2.67	0.53	3.937	A	A
D	5.31	1.06	3.724	A	A
E	0.60	0.12	5.695	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.45	0.89	3.129	A	A
B	2.59	0.52	5.021	A	A
C	2.96	0.59	4.242	A	A
D	5.96	1.19	4.084	A	A
E	0.67	0.13	6.139	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.75	1.15	3.682	A	A
B	3.39	0.68	6.014	A	A
C	3.81	0.76	4.973	A	A
D	7.95	1.59	5.014	A	A
E	0.86	0.17	7.203	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.40	1.48	4.378	A	A
B	4.45	0.89	7.314	A	A
C	4.89	0.98	5.889	A	A
D	10.73	2.15	6.298	A	A
E	1.11	0.22	8.519	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.26	1.85	5.171	A	A
B	5.71	1.14	8.867	A	A
C	6.10	1.22	6.924	A	A
D	14.19	2.84	7.929	A	A
E	1.39	0.28	10.034	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.09	2.22	5.940	A	A
B	7.00	1.40	10.452	B	B
C	7.28	1.46	7.920	A	A
D	18.03	3.61	9.733	A	A
E	1.66	0.33	11.473	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.48	2.50	6.469	A	A
B	8.04	1.61	11.612	B	B
C	8.18	1.64	8.607	A	A
D	21.42	4.28	11.182	B	B
E	1.87	0.37	12.470	B	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.09	2.62	6.554	A	A
B	8.53	1.71	11.820	B	B
C	8.57	1.71	8.709	A	A
D	23.26	4.65	11.595	B	B
E	1.95	0.39	12.631	B	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.94	2.59	6.126	A	A
B	8.47	1.69	10.902	B	B
C	8.49	1.70	8.153	A	A
D	23.46	4.69	10.643	B	B
E	1.93	0.39	11.779	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.22	2.24	5.393	A	A
B	7.25	1.45	9.378	A	A
C	7.41	1.48	7.204	A	A
D	19.74	3.95	8.892	A	A
E	1.68	0.34	10.447	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.79	1.76	4.535	A	A
B	5.51	1.10	7.645	A	A
C	5.85	1.17	6.089	A	A
D	14.11	2.82	6.846	A	A
E	1.33	0.27	8.826	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.62	1.32	3.769	A	A
B	4.03	0.81	6.191	A	A
C	4.43	0.89	5.089	A	A
D	9.79	1.96	5.261	A	A
E	1.01	0.20	7.362	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.93	0.99	3.169	A	A
B	2.93	0.59	5.094	A	A
C	3.31	0.66	4.294	A	A
D	6.86	1.37	4.177	A	A
E	0.76	0.15	6.204	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.20	0.84	2.911	A	A
B	2.47	0.49	4.641	A	A
C	2.82	0.56	3.951	A	A
D	5.68	1.14	3.747	A	A
E	0.64	0.13	5.715	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.07	0.81	2.902	A	A
B	2.38	0.48	4.626	A	A
C	2.73	0.55	3.939	A	A
D	5.46	1.09	3.727	A	A
E	0.62	0.12	5.696	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.05	0.81	2.902	A	A
B	2.36	0.47	4.625	A	A
C	2.71	0.54	3.938	A	A
D	5.42	1.08	3.729	A	A
E	0.62	0.12	5.698	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A216 Saturday total traffic with development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:54:47

» Year 2016 Saturday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour + committed + development				
Arm A	1.84	4.81	0.65	A	16 % [Arm D]
Arm B	1.28	8.81	0.57	A	
Arm C	1.17	6.76	0.54	A	
Arm D	4.03	9.82	0.81	A	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2016 Saturday Peak Hour + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:54:43

File summary

Title	3167A216 Year 2016, Saturday peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2016 Saturday Peak Hour + committed + development, AM	Year 2016 Saturday Peak Hour + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				7.51	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	16	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.63	100.000
B	ONE HOUR	✓	7.92	100.000
C	ONE HOUR	✓	9.32	100.000
D	ONE HOUR	✓	22.72	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.533	1.050	4.450	13.600	0.000
	B	2.417	0.000	1.700	3.800	0.000
	C	4.450	2.017	0.000	2.850	0.000
	D	12.983	5.000	4.733	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.07	0.05	0.22	0.66	0.00
	B	0.31	0.00	0.21	0.48	0.00
	C	0.48	0.22	0.00	0.31	0.00
	D	0.57	0.22	0.21	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.65	4.81	1.84	A	18.96	1706.70	100.77	3.54	1.12	100.78	3.54
B	0.57	8.81	1.28	A	7.28	654.83	66.55	6.10	0.74	66.55	6.10
C	0.54	6.76	1.17	A	8.56	770.64	63.32	4.93	0.70	63.33	4.93
D	0.81	9.82	4.03	A	20.88	1879.03	185.68	5.93	2.06	185.70	5.93
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.49	16.00	8.79	0.00	38.60	34.29	0.405	0.00	0.67	2.582	A
B	5.99	29.97	5.91	6.04	18.24	0.00	20.23	10.39	0.296	0.00	0.41	4.168	A
C	7.05	35.27	6.97	8.15	16.00	0.00	23.72	14.60	0.297	0.00	0.42	3.564	A
D	17.20	86.00	17.00	15.18	7.79	0.00	34.02	29.38	0.506	0.00	1.00	3.485	A
E	0.00	0.00	0.00	0.00	24.80	0.00	12.10	3.73	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.62	16.19	8.90	0.00	38.53	34.29	0.405	0.67	0.68	2.618	A
B	5.99	29.97	5.99	6.11	18.41	0.00	20.15	10.39	0.298	0.41	0.42	4.238	A
C	7.05	35.27	7.05	8.24	16.16	0.00	23.64	14.60	0.298	0.42	0.42	3.616	A
D	17.20	86.00	17.20	15.33	7.89	0.00	33.97	29.38	0.506	1.00	1.01	3.577	A
E	0.00	0.00	0.00	0.00	25.08	0.00	11.98	3.73	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.62	16.19	8.90	0.00	38.53	34.29	0.405	0.68	0.68	2.618	A
B	5.99	29.97	5.99	6.11	18.41	0.00	20.15	10.39	0.298	0.42	0.42	4.238	A
C	7.05	35.27	7.05	8.24	16.17	0.00	23.64	14.60	0.298	0.42	0.42	3.617	A
D	17.20	86.00	17.20	15.33	7.89	0.00	33.97	29.38	0.506	1.01	1.02	3.577	A
E	0.00	0.00	0.00	0.00	25.09	0.00	11.98	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.67	83.34	16.65	17.25	9.48	0.00	38.17	34.29	0.437	0.68	0.76	2.785	A
B	6.40	31.98	6.38	6.51	19.62	0.00	19.57	10.39	0.327	0.42	0.48	4.548	A
C	7.53	37.63	7.52	8.78	17.23	0.00	23.08	14.60	0.326	0.42	0.48	3.855	A
D	18.35	91.76	18.32	16.34	8.40	0.00	33.67	29.38	0.545	1.02	1.17	3.899	A
E	0.00	0.00	0.00	0.00	26.72	0.00	11.31	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.66	93.28	18.61	19.26	10.58	0.00	37.49	34.29	0.498	0.76	0.97	3.173	A
B	7.16	35.79	7.13	7.27	21.93	0.00	18.45	10.39	0.388	0.48	0.62	5.284	A
C	8.42	42.12	8.40	9.81	19.25	0.00	22.01	14.60	0.383	0.48	0.61	4.397	A
D	20.54	102.70	20.46	18.26	9.39	0.00	33.10	29.38	0.620	1.17	1.58	4.712	A
E	0.00	0.00	0.00	0.00	29.85	0.00	10.03	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.41	102.07	20.37	21.07	11.57	0.00	36.88	34.29	0.554	0.97	1.21	3.624	A
B	7.83	39.16	7.80	7.95	23.99	0.00	17.46	10.39	0.449	0.62	0.79	6.185	A
C	9.22	46.09	9.19	10.73	21.06	0.00	21.06	14.60	0.438	0.61	0.76	5.042	A
D	22.48	112.38	22.37	19.98	10.27	0.00	32.59	29.38	0.690	1.58	2.11	5.799	A
E	0.00	0.00	0.00	0.00	32.64	0.00	8.88	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.84	109.21	21.79	22.53	12.38	0.00	36.38	34.29	0.600	1.21	1.46	4.096	A
B	8.38	41.90	8.34	8.50	25.67	0.00	16.65	10.39	0.503	0.79	0.97	7.182	A
C	9.86	49.31	9.83	11.48	22.54	0.00	20.28	14.60	0.486	0.76	0.92	5.719	A
D	24.05	120.24	23.92	21.38	10.99	0.00	32.18	29.38	0.747	2.11	2.74	7.126	A
E	0.00	0.00	0.00	0.00	34.91	0.00	7.95	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.85	114.24	22.81	23.58	12.95	0.00	36.02	34.29	0.634	1.46	1.68	4.519	A
B	8.77	43.83	8.73	8.90	26.86	0.00	16.08	10.39	0.545	0.97	1.14	8.110	A
C	10.32	51.59	10.29	12.01	23.58	0.00	19.73	14.60	0.523	0.92	1.06	6.332	A
D	25.16	125.78	25.03	22.37	11.50	0.00	31.89	29.38	0.789	2.74	3.40	8.520	A
E	0.00	0.00	0.00	0.00	36.53	0.00	7.29	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.37	116.85	23.34	24.15	13.26	0.00	35.83	34.29	0.652	1.68	1.82	4.788	A
B	8.97	44.83	8.94	9.11	27.49	0.00	15.77	10.39	0.569	1.14	1.26	8.739	A
C	10.55	52.76	10.53	12.30	24.14	0.00	19.43	14.60	0.543	1.06	1.15	6.719	A
D	25.73	128.64	25.63	22.90	11.78	0.00	31.73	29.38	0.811	3.40	3.88	9.578	A
E	0.00	0.00	0.00	0.00	37.41	0.00	6.93	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.37	116.85	23.36	24.20	13.29	0.00	35.81	34.29	0.653	1.82	1.84	4.814	A
B	8.97	44.83	8.96	9.13	27.53	0.00	15.75	10.39	0.569	1.26	1.28	8.811	A
C	10.55	52.76	10.55	12.32	24.17	0.00	19.42	14.60	0.543	1.15	1.17	6.755	A
D	25.73	128.64	25.70	22.93	11.79	0.00	31.72	29.38	0.811	3.88	4.03	9.819	A
E	0.00	0.00	0.00	0.00	37.49	0.00	6.90	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.85	114.24	22.86	23.70	13.02	0.00	35.98	34.29	0.635	1.84	1.78	4.582	A
B	8.77	43.83	8.77	8.94	26.94	0.00	16.04	10.39	0.547	1.28	1.24	8.285	A
C	10.32	51.59	10.32	12.06	23.66	0.00	19.69	14.60	0.524	1.17	1.13	6.416	A
D	25.16	125.78	25.17	22.44	11.54	0.00	31.86	29.38	0.790	4.03	3.93	9.064	A
E	0.00	0.00	0.00	0.00	36.72	0.00	7.21	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.84	109.21	21.89	22.75	12.51	0.00	36.30	34.29	0.602	1.78	1.55	4.179	A
B	8.38	41.90	8.42	8.58	25.82	0.00	16.58	10.39	0.505	1.24	1.06	7.388	A
C	9.86	49.31	9.89	11.57	22.66	0.00	20.21	14.60	0.488	1.13	0.98	5.832	A
D	24.05	120.24	24.20	21.49	11.06	0.00	32.14	29.38	0.748	3.93	3.19	7.720	A
E	0.00	0.00	0.00	0.00	35.26	0.00	7.81	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.41	102.07	20.47	21.29	11.71	0.00	36.79	34.29	0.555	1.55	1.28	3.691	A
B	7.83	39.16	7.88	8.03	24.15	0.00	17.38	10.39	0.451	1.06	0.85	6.343	A
C	9.22	46.09	9.25	10.82	21.20	0.00	20.99	14.60	0.439	0.98	0.80	5.130	A
D	22.48	112.38	22.64	20.10	10.35	0.00	32.55	29.38	0.691	3.19	2.35	6.165	A
E	0.00	0.00	0.00	0.00	32.99	0.00	8.74	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.66	93.28	18.71	19.44	10.69	0.00	37.43	34.29	0.498	1.28	1.01	3.214	A
B	7.16	35.79	7.20	7.33	22.06	0.00	18.39	10.39	0.389	0.85	0.65	5.379	A
C	8.42	42.12	8.46	9.89	19.37	0.00	21.95	14.60	0.384	0.80	0.64	4.460	A
D	20.54	102.70	20.67	18.37	9.46	0.00	33.06	29.38	0.621	2.35	1.70	4.893	A
E	0.00	0.00	0.00	0.00	30.13	0.00	9.91	3.73	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.67	83.34	16.71	17.35	9.54	0.00	38.14	34.29	0.437	1.01	0.79	2.806	A
B	6.40	31.98	6.43	6.55	19.71	0.00	19.52	10.39	0.328	0.65	0.50	4.591	A
C	7.53	37.63	7.56	8.83	17.31	0.00	23.04	14.60	0.327	0.64	0.49	3.883	A
D	18.35	91.76	18.45	16.41	8.45	0.00	33.64	29.38	0.545	1.70	1.23	3.974	A
E	0.00	0.00	0.00	0.00	26.89	0.00	11.24	3.73	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.64	16.22	8.92	0.00	38.52	34.29	0.406	0.79	0.69	2.626	A
B	5.99	29.97	6.01	6.12	18.44	0.00	20.14	10.39	0.298	0.50	0.43	4.251	A
C	7.05	35.27	7.07	8.26	16.19	0.00	23.63	14.60	0.299	0.49	0.43	3.625	A
D	17.20	86.00	17.24	15.36	7.90	0.00	33.96	29.38	0.507	1.23	1.05	3.596	A
E	0.00	0.00	0.00	0.00	25.14	0.00	11.95	3.73	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.62	16.19	8.90	0.00	38.53	34.29	0.405	0.69	0.69	2.618	A
B	5.99	29.97	6.00	6.11	18.41	0.00	20.15	10.39	0.298	0.43	0.43	4.241	A
C	7.05	35.27	7.06	8.24	16.17	0.00	23.64	14.60	0.298	0.43	0.43	3.617	A
D	17.20	86.00	17.20	15.33	7.89	0.00	33.97	29.38	0.506	1.05	1.04	3.579	A
E	0.00	0.00	0.00	0.00	25.09	0.00	11.97	3.73	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.62	78.12	15.62	16.19	8.90	0.00	38.53	34.29	0.405	0.69	0.69	2.620	A
B	5.99	29.97	5.99	6.11	18.41	0.00	20.15	10.39	0.298	0.43	0.43	4.240	A
C	7.05	35.27	7.05	8.24	16.17	0.00	23.64	14.60	0.298	0.43	0.43	3.620	A
D	17.20	86.00	17.20	15.33	7.89	0.00	33.97	29.38	0.506	1.04	1.03	3.578	A
E	0.00	0.00	0.00	0.00	25.09	0.00	11.98	3.73	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.20	0.64	2.582	A	A
B	1.95	0.39	4.168	A	A
C	1.97	0.39	3.564	A	A
D	4.68	0.94	3.485	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.37	0.67	2.618	A	A
B	2.08	0.42	4.238	A	A
C	2.10	0.42	3.616	A	A
D	5.04	1.01	3.577	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.39	0.68	2.618	A	A
B	2.10	0.42	4.238	A	A
C	2.11	0.42	3.617	A	A
D	5.08	1.02	3.577	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.74	0.75	2.785	A	A
B	2.32	0.46	4.548	A	A
C	2.33	0.47	3.855	A	A
D	5.68	1.14	3.899	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.70	0.94	3.173	A	A
B	2.96	0.59	5.284	A	A
C	2.92	0.58	4.397	A	A
D	7.48	1.50	4.712	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.83	1.17	3.624	A	A
B	3.76	0.75	6.185	A	A
C	3.65	0.73	5.042	A	A
D	9.91	1.98	5.799	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.02	1.40	4.096	A	A
B	4.64	0.93	7.182	A	A
C	4.41	0.88	5.719	A	A
D	12.83	2.57	7.126	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.11	1.62	4.519	A	A
B	5.49	1.10	8.110	A	A
C	5.11	1.02	6.332	A	A
D	15.93	3.19	8.520	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.86	1.77	4.788	A	A
B	6.11	1.22	8.739	A	A
C	5.60	1.12	6.719	A	A
D	18.52	3.70	9.578	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.15	1.83	4.814	A	A
B	6.37	1.27	8.811	A	A
C	5.79	1.16	6.755	A	A
D	19.84	3.97	9.819	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.02	1.80	4.582	A	A
B	6.29	1.26	8.285	A	A
C	5.71	1.14	6.416	A	A
D	19.88	3.98	9.064	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.03	1.61	4.179	A	A
B	5.53	1.11	7.388	A	A
C	5.08	1.02	5.832	A	A
D	16.95	3.39	7.720	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.62	1.32	3.691	A	A
B	4.44	0.89	6.343	A	A
C	4.18	0.84	5.130	A	A
D	12.58	2.52	6.165	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.25	1.05	3.214	A	A
B	3.42	0.68	5.379	A	A
C	3.31	0.66	4.460	A	A
D	9.02	1.80	4.893	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.07	0.81	2.806	A	A
B	2.59	0.52	4.591	A	A
C	2.56	0.51	3.883	A	A
D	6.47	1.29	3.974	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.53	0.71	2.626	A	A
B	2.22	0.44	4.251	A	A
C	2.21	0.44	3.625	A	A
D	5.41	1.08	3.596	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.44	0.69	2.618	A	A
B	2.15	0.43	4.241	A	A
C	2.15	0.43	3.617	A	A
D	5.21	1.04	3.579	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.43	0.69	2.620	A	A
B	2.13	0.43	4.240	A	A
C	2.14	0.43	3.620	A	A
D	5.18	1.04	3.578	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A217 Friday PM total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:56:42

» Year 2020 Friday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday Peak Hour + committed + development				
Arm A	3.40	8.11	0.78	A	7 % [Arm D]
Arm B	2.40	15.74	0.72	C	
Arm C	2.27	10.87	0.70	B	
Arm D	7.35	17.23	0.90	C	
Arm E	0.52	15.77	0.35	C	

Values shown are the maximum values 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.

"D1 - Year 2020 Friday Peak Hour + committed + development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 09:56:38

File summary

Title	3167A217 Year 2020, Friday PM peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2020 Friday Peak Hour + committed + development, AM	Year 2020 Friday Peak Hour + committed + development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				12.91	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	7	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	23.02	100.000
B	ONE HOUR	✓	8.50	100.000
C	ONE HOUR	✓	11.48	100.000
D	ONE HOUR	✓	24.18	100.000
E	ONE HOUR	✓	1.80	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.383	0.983	5.850	14.417	0.383
	B	2.550	0.000	2.383	3.500	0.067
	C	5.233	2.550	0.000	3.550	0.150
	D	12.183	5.733	5.883	0.000	0.383
	E	0.700	0.267	0.167	0.667	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.25	0.63	0.02
	B	0.30	0.00	0.28	0.41	0.01
	C	0.46	0.22	0.00	0.31	0.01
	D	0.50	0.24	0.24	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.78	8.11	3.40	A	21.15	1903.84	159.08	5.01	1.77	159.09	5.01
B	0.72	15.74	2.40	C	7.81	703.08	103.97	8.87	1.16	103.98	8.87
C	0.70	10.87	2.27	B	10.55	949.85	106.94	6.75	1.19	106.95	6.76
D	0.80	17.23	7.35	C	22.23	2000.35	282.95	8.49	3.14	282.97	8.49
E	0.35	15.77	0.52	C	1.65	148.89	24.39	9.83	0.27	24.39	9.83

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.25	16.47	11.40	0.00	36.98	31.67	0.471	0.00	0.87	3.013	A
B	6.44	32.18	6.33	7.12	21.53	0.00	18.65	10.08	0.345	0.00	0.51	4.835	A
C	8.70	43.48	8.58	10.68	17.18	0.00	23.10	15.79	0.376	0.00	0.59	4.099	A
D	18.31	91.56	18.07	16.56	9.20	0.00	33.21	29.04	0.551	0.00	1.19	3.905	A
E	1.36	6.81	1.34	0.74	26.54	0.00	11.38	4.15	0.120	0.00	0.13	5.957	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.43	16.69	11.56	0.00	36.89	31.67	0.472	0.87	0.89	3.082	A
B	6.44	32.18	6.43	7.22	21.77	0.00	18.53	10.08	0.347	0.51	0.52	4.957	A
C	8.70	43.48	8.69	10.81	17.39	0.00	22.99	15.79	0.378	0.59	0.60	4.193	A
D	18.31	91.56	18.31	16.76	9.32	0.00	33.14	29.04	0.553	1.19	1.22	4.042	A
E	1.36	6.81	1.36	0.74	26.89	0.00	11.24	4.15	0.121	0.13	0.14	6.074	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.43	16.69	11.56	0.00	36.89	31.67	0.473	0.89	0.89	3.083	A
B	6.44	32.18	6.44	7.22	21.77	0.00	18.53	10.08	0.347	0.52	0.53	4.960	A
C	8.70	43.48	8.69	10.81	17.39	0.00	22.99	15.79	0.378	0.60	0.60	4.195	A
D	18.31	91.56	18.31	16.76	9.33	0.00	33.14	29.04	0.553	1.22	1.22	4.044	A
E	1.36	6.81	1.36	0.74	26.89	0.00	11.24	4.15	0.121	0.14	0.14	6.075	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.59	92.97	18.57	17.78	12.31	0.00	36.42	31.67	0.511	0.89	1.02	3.354	A
B	6.87	34.33	6.85	7.69	23.19	0.00	17.85	10.08	0.385	0.53	0.61	5.446	A
C	9.28	46.38	9.26	11.52	18.52	0.00	22.40	15.79	0.414	0.60	0.69	4.560	A
D	19.54	97.68	19.50	17.85	9.93	0.00	32.79	29.04	0.596	1.22	1.43	4.497	A
E	1.45	7.27	1.45	0.79	28.63	0.00	10.52	4.15	0.138	0.14	0.16	6.609	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.81	104.05	20.74	19.83	13.73	0.00	35.54	31.67	0.586	1.02	1.37	4.033	A
B	7.69	38.43	7.64	8.58	25.89	0.00	16.54	10.08	0.465	0.61	0.84	6.701	A
C	10.38	51.91	10.34	12.85	20.68	0.00	21.26	15.79	0.488	0.69	0.92	5.468	A
D	21.87	109.33	21.75	19.93	11.08	0.00	32.13	29.04	0.681	1.43	2.02	5.708	A
E	1.63	8.14	1.62	0.89	31.95	0.00	9.17	4.15	0.178	0.16	0.21	7.934	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.77	113.87	22.68	21.67	15.00	0.00	34.75	31.67	0.655	1.37	1.82	4.929	A
B	8.41	42.05	8.35	9.37	28.31	0.00	15.38	10.08	0.547	0.84	1.14	8.450	A
C	11.36	56.81	11.30	14.05	22.61	0.00	20.24	15.79	0.561	0.92	1.22	6.660	A
D	23.93	119.64	23.75	21.79	12.12	0.00	31.53	29.04	0.759	2.02	2.89	7.523	A
E	1.78	8.90	1.77	0.97	34.91	0.00	7.96	4.15	0.224	0.21	0.28	9.664	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.37	121.83	24.26	23.15	16.02	0.00	34.12	31.67	0.714	1.82	2.36	6.004	A
B	9.00	44.99	8.92	10.01	30.27	0.00	14.44	10.08	0.623	1.14	1.53	10.697	B
C	12.16	60.78	12.09	15.01	24.18	0.00	19.42	15.79	0.626	1.22	1.58	8.088	A
D	25.60	128.00	25.36	23.30	12.96	0.00	31.05	29.04	0.825	2.89	4.08	10.049	B
E	1.91	9.53	1.89	1.03	37.29	0.00	6.98	4.15	0.273	0.28	0.36	11.739	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.49	127.44	25.38	24.20	16.74	0.00	33.68	31.67	0.757	2.36	2.89	7.109	A
B	9.41	47.06	9.33	10.47	31.66	0.00	13.77	10.08	0.684	1.53	1.96	13.188	B
C	12.72	63.58	12.65	15.70	25.29	0.00	18.83	15.79	0.675	1.58	1.93	9.553	A
D	26.78	133.90	26.49	24.38	13.56	0.00	30.70	29.04	0.872	4.08	5.51	13.115	B
E	1.99	9.97	1.98	1.08	38.97	0.00	6.29	4.15	0.317	0.36	0.44	13.844	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	26.07	130.34	25.99	24.79	17.15	0.00	33.42	31.67	0.780	2.89	3.28	7.933	A
B	9.63	48.14	9.56	10.72	32.42	0.00	13.40	10.08	0.719	1.96	2.29	15.210	C
C	13.01	65.03	12.95	16.08	25.90	0.00	18.51	15.79	0.703	1.93	2.19	10.640	B
D	27.39	136.95	27.13	24.97	13.89	0.00	30.51	29.04	0.893	5.51	6.79	15.950	C
E	2.04	10.19	2.03	1.11	39.91	0.00	5.90	4.15	0.345	0.44	0.50	15.411	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	26.07	130.34	26.05	24.90	17.23	0.00	33.37	31.67	0.781	3.28	3.40	8.112	A
B	9.63	48.14	9.61	10.77	32.51	0.00	13.35	10.08	0.721	2.29	2.40	15.741	C
C	13.01	65.03	12.99	16.14	25.98	0.00	18.47	15.79	0.704	2.19	2.27	10.866	B
D	27.39	136.95	27.28	25.04	13.93	0.00	30.49	29.04	0.895	6.79	7.35	17.229	C
E	2.04	10.19	2.04	1.11	40.10	0.00	5.83	4.15	0.350	0.50	0.52	15.773	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.49	127.44	25.51	24.44	16.92	0.00	33.57	31.67	0.759	3.40	3.29	7.498	A
B	9.41	47.06	9.43	10.56	31.86	0.00	13.67	10.08	0.689	2.40	2.33	14.294	B
C	12.72	63.58	12.73	15.83	25.46	0.00	18.74	15.79	0.679	2.27	2.20	10.045	B
D	26.78	133.90	26.79	24.53	13.65	0.00	30.65	29.04	0.874	7.35	7.30	15.902	C
E	1.99	9.97	2.00	1.09	39.36	0.00	6.13	4.15	0.325	0.52	0.50	14.534	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.37	121.83	24.48	23.60	16.36	0.00	33.91	31.67	0.719	3.29	2.70	6.460	A
B	9.00	44.99	9.09	10.20	30.64	0.00	14.25	10.08	0.631	2.33	1.85	11.878	B
C	12.16	60.78	12.23	15.27	24.47	0.00	19.26	15.79	0.631	2.20	1.81	8.652	A
D	25.60	128.00	25.96	23.57	13.13	0.00	30.95	29.04	0.827	7.30	5.49	12.835	B
E	1.91	9.53	1.92	1.05	38.04	0.00	6.67	4.15	0.286	0.50	0.42	12.686	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.77	113.87	22.91	22.11	15.33	0.00	34.55	31.67	0.659	2.70	2.02	5.217	A
B	8.41	42.05	8.52	9.56	28.68	0.00	15.20	10.08	0.553	1.85	1.31	9.126	A
C	11.36	56.81	11.45	14.30	22.90	0.00	20.09	15.79	0.566	1.81	1.36	7.024	A
D	23.93	119.64	24.33	22.06	12.29	0.00	31.43	29.04	0.761	5.49	3.48	8.868	A
E	1.78	8.90	1.80	0.98	35.64	0.00	7.66	4.15	0.233	0.42	0.32	10.288	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.81	104.05	20.92	20.13	13.95	0.00	35.41	31.67	0.588	2.02	1.47	4.174	A
B	7.69	38.43	7.76	8.70	26.17	0.00	16.41	10.08	0.468	1.31	0.92	7.001	A
C	10.38	51.91	10.46	13.03	20.91	0.00	21.14	15.79	0.491	1.36	1.00	5.656	A
D	21.87	109.33	22.11	20.14	11.22	0.00	32.05	29.04	0.682	3.48	2.27	6.181	A
E	1.63	8.14	1.64	0.90	32.43	0.00	8.97	4.15	0.181	0.32	0.23	8.213	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.59	92.97	18.67	17.94	12.42	0.00	36.35	31.67	0.512	1.47	1.07	3.409	A
B	6.87	34.33	6.92	7.75	23.34	0.00	17.77	10.08	0.386	0.92	0.65	5.558	A
C	9.28	46.38	9.33	11.61	18.65	0.00	22.33	15.79	0.415	1.00	0.73	4.637	A
D	19.54	97.68	19.68	17.97	10.01	0.00	32.74	29.04	0.597	2.27	1.53	4.645	A
E	1.45	7.27	1.47	0.80	28.89	0.00	10.42	4.15	0.140	0.23	0.17	6.712	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.46	16.74	11.59	0.00	36.86	31.67	0.473	1.07	0.91	3.099	A
B	6.44	32.18	6.46	7.24	21.81	0.00	18.51	10.08	0.348	0.65	0.55	4.989	A
C	8.70	43.48	8.72	10.84	17.43	0.00	22.97	15.79	0.379	0.73	0.62	4.217	A
D	18.31	91.56	18.36	16.80	9.35	0.00	33.12	29.04	0.553	1.53	1.27	4.080	A
E	1.36	6.81	1.37	0.75	26.97	0.00	11.21	4.15	0.122	0.17	0.14	6.101	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.43	16.70	11.56	0.00	36.88	31.67	0.473	0.91	0.90	3.086	A
B	6.44	32.18	6.44	7.22	21.77	0.00	18.53	10.08	0.347	0.55	0.54	4.964	A
C	8.70	43.48	8.70	10.82	17.39	0.00	22.99	15.79	0.378	0.62	0.61	4.199	A
D	18.31	91.56	18.31	16.76	9.33	0.00	33.14	29.04	0.553	1.27	1.25	4.050	A
E	1.36	6.81	1.36	0.74	26.90	0.00	11.23	4.15	0.121	0.14	0.14	6.080	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.43	87.14	17.43	16.70	11.56	0.00	36.88	31.67	0.473	0.90	0.90	3.086	A
B	6.44	32.18	6.44	7.22	21.77	0.00	18.53	10.08	0.347	0.54	0.54	4.961	A
C	8.70	43.48	8.70	10.82	17.39	0.00	22.99	15.79	0.378	0.61	0.61	4.198	A
D	18.31	91.56	18.31	16.76	9.33	0.00	33.14	29.04	0.553	1.25	1.25	4.048	A
E	1.36	6.81	1.36	0.74	26.89	0.00	11.24	4.15	0.121	0.14	0.14	6.076	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.13	0.83	3.013	A	A
B	2.40	0.48	4.835	A	A
C	2.77	0.55	4.099	A	A
D	5.54	1.11	3.905	A	A
E	0.62	0.12	5.957	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.41	0.88	3.082	A	A
B	2.60	0.52	4.957	A	A
C	2.98	0.60	4.193	A	A
D	6.04	1.21	4.042	A	A
E	0.68	0.14	6.074	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.44	0.89	3.083	A	A
B	2.63	0.53	4.960	A	A
C	3.01	0.60	4.195	A	A
D	6.10	1.22	4.044	A	A
E	0.68	0.14	6.075	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.98	1.00	3.354	A	A
B	2.96	0.59	5.446	A	A
C	3.36	0.67	4.560	A	A
D	6.90	1.38	4.497	A	A
E	0.76	0.15	6.609	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.55	1.31	4.033	A	A
B	3.96	0.79	6.701	A	A
C	4.40	0.88	5.468	A	A
D	9.47	1.89	5.708	A	A
E	1.00	0.20	7.934	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.63	1.73	4.929	A	A
B	5.37	1.07	8.450	A	A
C	5.79	1.16	6.660	A	A
D	13.29	2.66	7.523	A	A
E	1.32	0.26	9.664	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.10	2.22	6.004	A	A
B	7.14	1.43	10.697	B	B
C	7.43	1.49	8.088	A	A
D	18.49	3.70	10.049	B	B
E	1.70	0.34	11.739	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.66	2.73	7.109	A	A
B	9.11	1.82	13.188	B	B
C	9.13	1.83	9.553	A	A
D	24.89	4.98	13.115	B	B
E	2.09	0.42	13.844	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.74	3.15	7.933	A	A
B	10.84	2.17	15.210	C	B
C	10.51	2.10	10.640	B	B
D	31.31	6.26	15.950	C	B
E	2.40	0.48	15.411	C	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.74	3.35	8.112	A	A
B	11.76	2.35	15.741	C	B
C	11.18	2.24	10.866	B	B
D	35.51	7.10	17.229	C	B
E	2.55	0.51	15.773	C	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.67	3.33	7.498	A	A
B	11.80	2.36	14.294	B	B
C	11.14	2.23	10.045	B	B
D	36.62	7.32	15.902	C	B
E	2.53	0.51	14.534	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.25	2.85	6.460	A	A
B	9.87	1.97	11.878	B	B
C	9.56	1.91	8.652	A	A
D	30.02	6.00	12.835	B	B
E	2.19	0.44	12.686	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.71	2.14	5.217	A	A
B	7.05	1.41	9.126	A	A
C	7.23	1.45	7.024	A	A
D	19.26	3.85	8.868	A	A
E	1.67	0.33	10.288	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.74	1.55	4.174	A	A
B	4.87	0.97	7.001	A	A
C	5.26	1.05	5.656	A	A
D	12.26	2.45	6.181	A	A
E	1.20	0.24	8.213	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.58	1.12	3.409	A	A
B	3.41	0.68	5.558	A	A
C	3.81	0.76	4.637	A	A
D	8.13	1.63	4.645	A	A
E	0.87	0.17	6.712	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.69	0.94	3.099	A	A
B	2.82	0.56	4.989	A	A
C	3.20	0.64	4.217	A	A
D	6.59	1.32	4.080	A	A
E	0.73	0.15	6.101	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.54	0.91	3.086	A	A
B	2.71	0.54	4.964	A	A
C	3.09	0.62	4.199	A	A
D	6.30	1.26	4.050	A	A
E	0.70	0.14	6.080	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.51	0.90	3.086	A	A
B	2.69	0.54	4.961	A	A
C	3.07	0.61	4.198	A	A
D	6.25	1.25	4.048	A	A
E	0.70	0.14	6.076	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A218 Saturday total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 09:58:42

» Year 2020 Saturday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour + committed + development				
Arm A	2.19	5.49	0.69	A	10 % [Arm D]
Arm B	1.64	10.71	0.63	B	
Arm C	1.43	7.87	0.59	A	
Arm D	5.81	13.59	0.87	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2020 Saturday Peak Hour + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 09:58:39

File summary

Title	3167A218 Year 2020, Saturday peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2020 Saturday Peak Hour + committed + development, AM	Year 2020 Saturday Peak Hour + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				9.60	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	10	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.57	100.000
B	ONE HOUR	✓	8.40	100.000
C	ONE HOUR	✓	9.87	100.000
D	ONE HOUR	✓	24.05	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.533	1.050	4.683	14.300	0.000
	B	2.550	0.000	1.817	4.033	0.000
	C	4.683	2.133	0.000	3.050	0.000
	D	13.683	5.317	5.050	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.07	0.05	0.22	0.66	0.00
	B	0.30	0.00	0.22	0.48	0.00
	C	0.47	0.22	0.00	0.31	0.00
	D	0.57	0.22	0.21	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.69	5.49	2.19	A	19.82	1783.91	115.42	3.88	1.28	115.43	3.88
B	0.63	10.71	1.64	B	7.72	694.81	80.34	6.94	0.89	80.34	6.94
C	0.59	7.87	1.43	A	9.07	816.13	74.30	5.46	0.83	74.31	5.46
D	0.87	13.59	5.81	B	22.10	1989.32	241.71	7.29	2.69	241.73	7.29
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.18	16.79	9.35	0.00	38.25	34.22	0.427	0.00	0.73	2.701	A
B	6.36	31.80	6.27	6.36	19.17	0.00	19.78	10.35	0.322	0.00	0.46	4.409	A
C	7.47	37.35	7.38	8.65	16.79	0.00	23.31	14.64	0.321	0.00	0.46	3.746	A
D	18.21	91.05	17.98	16.02	8.15	0.00	33.82	29.47	0.539	0.00	1.14	3.739	A
E	0.00	0.00	0.00	0.00	26.13	0.00	11.55	3.76	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.33	17.00	9.46	0.00	38.18	34.22	0.428	0.73	0.74	2.745	A
B	6.36	31.80	6.36	6.44	19.36	0.00	19.69	10.35	0.323	0.46	0.47	4.499	A
C	7.47	37.35	7.47	8.74	16.97	0.00	23.21	14.64	0.322	0.46	0.47	3.810	A
D	18.21	91.05	18.21	16.19	8.25	0.00	33.76	29.47	0.539	1.14	1.15	3.855	A
E	0.00	0.00	0.00	0.00	26.46	0.00	11.41	3.76	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.33	17.00	9.46	0.00	38.18	34.22	0.428	0.74	0.74	2.745	A
B	6.36	31.80	6.36	6.44	19.36	0.00	19.69	10.35	0.323	0.47	0.47	4.499	A
C	7.47	37.35	7.47	8.75	16.97	0.00	23.21	14.64	0.322	0.47	0.47	3.810	A
D	18.21	91.05	18.21	16.19	8.25	0.00	33.76	29.47	0.539	1.15	1.16	3.857	A
E	0.00	0.00	0.00	0.00	26.46	0.00	11.41	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.42	87.11	17.40	18.10	10.08	0.00	37.80	34.22	0.461	0.74	0.84	2.939	A
B	6.79	33.93	6.77	6.85	20.63	0.00	19.08	10.35	0.356	0.47	0.54	4.867	A
C	7.97	39.85	7.96	9.32	18.08	0.00	22.63	14.64	0.352	0.47	0.53	4.087	A
D	19.43	97.14	19.39	17.25	8.79	0.00	33.45	29.47	0.581	1.16	1.35	4.255	A
E	0.00	0.00	0.00	0.00	28.18	0.00	10.71	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.50	97.50	19.45	20.21	11.25	0.00	37.08	34.22	0.526	0.84	1.09	3.394	A
B	7.59	37.97	7.56	7.65	23.05	0.00	17.91	10.35	0.424	0.54	0.71	5.771	A
C	8.92	44.61	8.89	10.40	20.21	0.00	21.51	14.64	0.415	0.53	0.69	4.741	A
D	21.75	108.73	21.64	19.28	9.82	0.00	32.85	29.47	0.662	1.35	1.87	5.298	A
E	0.00	0.00	0.00	0.00	31.46	0.00	9.37	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.34	106.69	21.28	22.09	12.30	0.00	36.43	34.22	0.586	1.09	1.37	3.944	A
B	8.31	41.56	8.27	8.37	25.21	0.00	16.87	10.35	0.493	0.71	0.93	6.937	A
C	9.76	48.81	9.72	11.38	22.10	0.00	20.51	14.64	0.476	0.69	0.88	5.540	A
D	23.80	118.98	23.65	21.09	10.74	0.00	32.32	29.47	0.736	1.87	2.60	6.784	A
E	0.00	0.00	0.00	0.00	34.39	0.00	8.17	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.83	114.15	22.77	23.62	13.14	0.00	35.91	34.22	0.636	1.37	1.69	4.541	A
B	8.89	44.46	8.84	8.94	26.97	0.00	16.03	10.35	0.555	0.93	1.18	8.281	A
C	10.44	52.22	10.40	12.16	23.65	0.00	19.70	14.64	0.530	0.88	1.09	6.423	A
D	25.46	127.30	25.27	22.56	11.49	0.00	31.89	29.47	0.798	2.60	3.55	8.753	A
E	0.00	0.00	0.00	0.00	36.76	0.00	7.20	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.88	119.41	23.83	24.70	13.74	0.00	35.53	34.22	0.672	1.69	1.97	5.092	A
B	9.30	46.51	9.25	9.35	28.21	0.00	15.42	10.35	0.603	1.18	1.43	9.618	A
C	10.93	54.63	10.89	12.72	24.74	0.00	19.12	14.64	0.572	1.09	1.28	7.246	A
D	26.63	133.16	26.42	23.61	12.03	0.00	31.58	29.47	0.843	3.55	4.61	11.007	B
E	0.00	0.00	0.00	0.00	38.44	0.00	6.51	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.43	122.13	24.39	25.30	14.08	0.00	35.33	34.22	0.691	1.97	2.15	5.456	A
B	9.51	47.57	9.48	9.58	28.88	0.00	15.10	10.35	0.630	1.43	1.60	10.563	B
C	11.17	55.87	11.15	13.03	25.34	0.00	18.81	14.64	0.594	1.28	1.40	7.794	A
D	27.24	136.20	27.06	24.17	12.31	0.00	31.42	29.47	0.867	4.61	5.49	12.927	B
E	0.00	0.00	0.00	0.00	39.38	0.00	6.12	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.43	122.13	24.42	25.38	14.13	0.00	35.29	34.22	0.692	2.15	2.19	5.495	A
B	9.51	47.57	9.51	9.61	28.94	0.00	15.08	10.35	0.631	1.60	1.64	10.715	B
C	11.17	55.87	11.17	13.06	25.38	0.00	18.78	14.64	0.595	1.40	1.43	7.873	A
D	27.24	136.20	27.17	24.21	12.34	0.00	31.40	29.47	0.867	5.49	5.81	13.591	B
E	0.00	0.00	0.00	0.00	39.51	0.00	6.07	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.88	119.41	23.90	24.88	13.85	0.00	35.47	34.22	0.673	2.19	2.12	5.200	A
B	9.30	46.51	9.31	9.42	28.33	0.00	15.37	10.35	0.605	1.64	1.59	9.950	A
C	10.93	54.63	10.94	12.80	24.84	0.00	19.07	14.64	0.573	1.43	1.38	7.401	A
D	26.63	133.16	26.65	23.70	12.08	0.00	31.55	29.47	0.844	5.81	5.73	12.461	B
E	0.00	0.00	0.00	0.00	38.73	0.00	6.39	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.83	114.15	22.89	23.95	13.35	0.00	35.78	34.22	0.638	2.12	1.83	4.684	A
B	8.89	44.46	8.94	9.07	27.17	0.00	15.93	10.35	0.558	1.59	1.33	8.673	A
C	10.44	52.22	10.48	12.31	23.81	0.00	19.61	14.64	0.533	1.38	1.18	6.611	A
D	25.46	127.30	25.72	22.71	11.59	0.00	31.84	29.47	0.800	5.73	4.44	10.240	B
E	0.00	0.00	0.00	0.00	37.30	0.00	6.97	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.34	106.69	21.41	22.42	12.50	0.00	36.30	34.22	0.588	1.83	1.47	4.049	A
B	8.31	41.56	8.37	8.49	25.42	0.00	16.77	10.35	0.496	1.33	1.02	7.203	A
C	9.76	48.81	9.81	11.52	22.28	0.00	20.42	14.64	0.478	1.18	0.95	5.686	A
D	23.80	118.98	24.08	21.25	10.84	0.00	32.27	29.47	0.737	4.44	3.02	7.571	A
E	0.00	0.00	0.00	0.00	34.92	0.00	7.95	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.50	97.50	19.57	20.45	11.39	0.00	36.99	34.22	0.527	1.47	1.14	3.459	A
B	7.59	37.97	7.65	7.74	23.22	0.00	17.83	10.35	0.426	1.02	0.76	5.921	A
C	8.92	44.61	8.96	10.51	20.36	0.00	21.43	14.64	0.416	0.95	0.73	4.832	A
D	21.75	108.73	21.94	19.42	9.91	0.00	32.80	29.47	0.663	3.02	2.06	5.617	A
E	0.00	0.00	0.00	0.00	31.84	0.00	9.21	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.42	87.11	17.48	18.24	10.16	0.00	37.75	34.22	0.462	1.14	0.87	2.966	A
B	6.79	33.93	6.83	6.90	20.73	0.00	19.03	10.35	0.357	0.76	0.57	4.933	A
C	7.97	39.85	8.01	9.38	18.18	0.00	22.58	14.64	0.353	0.73	0.56	4.129	A
D	19.43	97.14	19.55	17.34	8.85	0.00	33.41	29.47	0.581	2.06	1.43	4.368	A
E	0.00	0.00	0.00	0.00	28.40	0.00	10.62	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.35	17.04	9.49	0.00	38.17	34.22	0.428	0.87	0.76	2.753	A
B	6.36	31.80	6.38	6.45	19.39	0.00	19.68	10.35	0.323	0.57	0.49	4.516	A
C	7.47	37.35	7.49	8.76	17.00	0.00	23.20	14.64	0.322	0.56	0.48	3.821	A
D	18.21	91.05	18.26	16.22	8.27	0.00	33.75	29.47	0.540	1.43	1.20	3.886	A
E	0.00	0.00	0.00	0.00	26.53	0.00	11.39	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.33	17.00	9.47	0.00	38.18	34.22	0.428	0.76	0.75	2.748	A
B	6.36	31.80	6.36	6.44	19.36	0.00	19.69	10.35	0.323	0.49	0.48	4.503	A
C	7.47	37.35	7.47	8.75	16.98	0.00	23.21	14.64	0.322	0.48	0.48	3.814	A
D	18.21	91.05	18.21	16.19	8.25	0.00	33.76	29.47	0.539	1.20	1.19	3.863	A
E	0.00	0.00	0.00	0.00	26.47	0.00	11.41	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.33	81.65	16.33	17.00	9.47	0.00	38.18	34.22	0.428	0.75	0.75	2.747	A
B	6.36	31.80	6.36	6.44	19.36	0.00	19.69	10.35	0.323	0.48	0.48	4.502	A
C	7.47	37.35	7.47	8.75	16.97	0.00	23.21	14.64	0.322	0.48	0.48	3.813	A
D	18.21	91.05	18.21	16.19	8.25	0.00	33.76	29.47	0.539	1.19	1.18	3.860	A
E	0.00	0.00	0.00	0.00	26.47	0.00	11.41	3.76	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.49	0.70	2.701	A	A
B	2.18	0.44	4.409	A	A
C	2.19	0.44	3.746	A	A
D	5.29	1.06	3.739	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.69	0.74	2.745	A	A
B	2.34	0.47	4.499	A	A
C	2.34	0.47	3.810	A	A
D	5.74	1.15	3.855	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.71	0.74	2.745	A	A
B	2.36	0.47	4.499	A	A
C	2.35	0.47	3.810	A	A
D	5.79	1.16	3.857	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.11	0.82	2.939	A	A
B	2.63	0.53	4.867	A	A
C	2.61	0.52	4.087	A	A
D	6.52	1.30	4.255	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.23	1.05	3.394	A	A
B	3.41	0.68	5.771	A	A
C	3.32	0.66	4.741	A	A
D	8.80	1.76	5.298	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.60	1.32	3.944	A	A
B	4.43	0.89	6.937	A	A
C	4.21	0.84	5.540	A	A
D	12.06	2.41	6.784	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.07	1.61	4.541	A	A
B	5.61	1.12	8.281	A	A
C	5.19	1.04	6.423	A	A
D	16.28	3.26	8.753	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.46	1.89	5.092	A	A
B	6.79	1.36	9.618	A	A
C	6.12	1.22	7.246	A	A
D	21.17	4.23	11.007	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.46	2.09	5.456	A	A
B	7.71	1.54	10.563	B	B
C	6.80	1.36	7.794	A	A
D	25.70	5.14	12.927	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.88	2.18	5.495	A	A
B	8.13	1.63	10.715	B	B
C	7.09	1.42	7.873	A	A
D	28.35	5.67	13.591	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.74	2.15	5.200	A	A
B	8.06	1.61	9.950	A	A
C	7.00	1.40	7.401	A	A
D	28.83	5.77	12.461	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.47	1.89	4.684	A	A
B	6.97	1.39	8.673	A	A
C	6.15	1.23	6.611	A	A
D	23.98	4.80	10.240	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.65	1.53	4.049	A	A
B	5.40	1.08	7.203	A	A
C	4.94	0.99	5.686	A	A
D	16.47	3.29	7.571	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.93	1.19	3.459	A	A
B	4.02	0.80	5.921	A	A
C	3.81	0.76	4.832	A	A
D	11.05	2.21	5.617	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.51	0.90	2.966	A	A
B	2.96	0.59	4.933	A	A
C	2.89	0.58	4.129	A	A
D	7.58	1.52	4.368	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.88	0.78	2.753	A	A
B	2.51	0.50	4.516	A	A
C	2.48	0.50	3.821	A	A
D	6.22	1.24	3.886	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.78	0.76	2.748	A	A
B	2.42	0.48	4.503	A	A
C	2.40	0.48	3.814	A	A
D	5.96	1.19	3.863	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.76	0.75	2.747	A	A
B	2.41	0.48	4.502	A	A
C	2.39	0.48	3.813	A	A
D	5.92	1.18	3.860	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A219 Friday PM do nothing + committed development 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:00:45

» Year 2025 Friday PM Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Friday PM Peak Hour + committed				
Arm A	0.97	43.35	0.52	E	-2 % [Arm A]
Arm B	8.91	13.33	0.91	B	
Arm C	2.34	10.36	0.71	B	
Arm D	1.56	3.97	0.61	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Friday PM Peak Hour + committed, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 10:00:41

File summary

Title	3167A219 Friday PM existing traffic + committed development 2025
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Friday PM Peak Hour + committed, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2025 Friday PM Peak Hour + committed, AM	Year 2025 Friday PM Peak Hour + committed	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				10.63	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-2	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.28	100.000
B	ONE HOUR	✓	37.73	100.000
C	ONE HOUR	✓	12.45	100.000
D	ONE HOUR	✓	21.08	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.617	0.117	0.550
	B	0.900	1.133	13.617	22.083
	C	0.183	10.733	0.083	1.450
	D	0.300	18.200	1.583	1.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.48	0.09	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.86	0.01	0.12
	D	0.01	0.86	0.08	0.05

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.52	43.35	0.97	E	1.18	106.15	33.66	19.03	0.37	33.66	19.03
B	0.91	13.33	8.91	B	34.68	3121.15	341.71	6.57	3.80	341.73	6.57
C	0.71	10.36	2.34	B	11.44	1029.81	105.82	6.17	1.18	105.83	6.17
D	0.61	3.97	1.56	A	19.38	1743.93	86.65	2.98	0.96	86.65	2.98

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.95	1.04	24.56	0.00	8.41	0.00	0.116	0.00	0.13	8.013	A
B	28.57	142.86	28.28	23.02	2.50	0.00	47.75	46.22	0.598	0.00	1.45	3.040	A
C	9.43	47.14	9.32	11.54	19.23	0.00	26.09	18.37	0.361	0.00	0.56	3.554	A
D	15.96	79.82	15.85	18.79	9.75	0.00	42.81	35.89	0.373	0.00	0.59	2.217	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	24.78	0.00	8.31	0.00	0.117	0.13	0.13	8.172	A
B	28.57	142.86	28.57	23.23	2.52	0.00	47.73	46.22	0.599	1.45	1.47	3.131	A
C	9.43	47.14	9.43	11.66	19.43	0.00	25.96	18.37	0.363	0.56	0.56	3.627	A
D	15.96	79.82	15.96	18.99	9.87	0.00	42.72	35.89	0.374	0.59	0.59	2.242	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	24.78	0.00	8.31	0.00	0.117	0.13	0.13	8.173	A
B	28.57	142.86	28.57	23.23	2.52	0.00	47.72	46.22	0.599	1.47	1.48	3.131	A
C	9.43	47.14	9.43	11.66	19.43	0.00	25.96	18.37	0.363	0.56	0.57	3.627	A
D	15.96	79.82	15.96	18.99	9.87	0.00	42.72	35.89	0.374	0.59	0.59	2.242	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.04	5.18	1.03	1.12	26.41	0.00	7.58	0.00	0.137	0.13	0.15	9.149	A
B	30.48	152.42	30.43	24.76	2.69	0.00	47.60	46.22	0.640	1.48	1.73	3.482	A
C	10.06	50.29	10.04	12.42	20.70	0.00	25.15	18.37	0.400	0.57	0.65	3.966	A
D	17.03	85.16	17.02	20.23	10.51	0.00	42.22	35.89	0.403	0.59	0.67	2.379	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.16	5.80	1.15	1.25	29.52	0.00	6.18	0.00	0.188	0.15	0.22	11.879	B
B	34.12	170.59	33.97	27.66	3.00	0.00	47.36	46.22	0.720	1.73	2.46	4.428	A
C	11.26	56.28	11.21	13.87	23.11	0.00	23.60	18.37	0.477	0.65	0.89	4.819	A
D	19.06	95.31	19.03	22.58	11.74	0.00	41.28	35.89	0.462	0.67	0.84	2.691	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.25	1.36	32.29	0.00	4.93	0.00	0.257	0.22	0.33	16.175	C
B	37.33	186.67	37.12	30.25	3.28	0.00	47.15	46.22	0.792	2.46	3.52	5.842	A
C	12.32	61.59	12.26	15.16	25.25	0.00	22.22	18.37	0.554	0.89	1.20	5.978	A
D	20.86	104.30	20.82	24.68	12.83	0.00	40.43	35.89	0.516	0.84	1.05	3.052	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.79	1.33	1.46	34.54	0.00	3.92	0.00	0.346	0.33	0.48	22.818	C
B	39.94	199.72	39.65	32.36	3.51	0.00	46.98	46.22	0.850	3.52	4.98	7.811	A
C	13.18	65.90	13.10	16.19	26.97	0.00	21.12	18.37	0.624	1.20	1.57	7.410	A
D	22.32	111.59	22.28	26.36	13.71	0.00	39.75	35.89	0.561	1.05	1.25	3.424	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.42	7.11	1.38	1.52	36.13	0.00	3.20	0.00	0.444	0.48	0.69	32.053	D
B	41.78	208.92	41.44	33.85	3.66	0.00	46.87	46.22	0.892	4.98	6.72	10.205	B
C	13.79	68.93	13.71	16.92	28.18	0.00	20.34	18.37	0.678	1.57	1.96	8.911	A
D	23.35	116.74	23.31	27.54	14.35	0.00	39.27	35.89	0.595	1.25	1.43	3.750	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.45	7.27	1.41	1.56	36.99	0.00	2.82	0.00	0.516	0.69	0.90	41.149	E
B	42.74	213.68	42.43	34.65	3.75	0.00	46.80	46.22	0.913	6.72	8.26	12.393	B
C	14.10	70.50	14.04	17.32	28.85	0.00	19.91	18.37	0.708	1.96	2.25	10.071	B
D	23.88	119.39	23.86	28.20	14.69	0.00	39.00	35.89	0.612	1.43	1.54	3.954	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.45	7.27	1.44	1.56	37.05	0.00	2.79	0.00	0.521	0.90	0.97	43.351	E
B	42.74	213.68	42.61	34.72	3.77	0.00	46.79	46.22	0.913	8.26	8.91	13.328	B
C	14.10	70.50	14.08	17.39	28.98	0.00	19.83	18.37	0.711	2.25	2.34	10.358	B
D	23.88	119.39	23.88	28.33	14.74	0.00	38.96	35.89	0.613	1.54	1.56	3.974	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.42	7.11	1.43	1.53	36.27	0.00	3.14	0.00	0.453	0.97	0.90	35.722	E
B	41.78	208.92	41.81	34.01	3.70	0.00	46.84	46.22	0.892	8.91	8.80	12.225	B
C	13.79	68.93	13.80	17.06	28.44	0.00	20.17	18.37	0.683	2.34	2.26	9.486	A
D	23.35	116.74	23.36	27.80	14.45	0.00	39.19	35.89	0.596	1.56	1.50	3.794	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.79	1.42	1.48	34.77	0.00	3.81	0.00	0.356	0.90	0.61	25.589	D
B	39.94	199.72	40.41	32.63	3.56	0.00	46.94	46.22	0.851	8.80	6.48	9.776	A
C	13.18	65.90	13.26	16.48	27.49	0.00	20.78	18.37	0.634	2.26	1.83	8.086	A
D	22.32	111.59	22.36	26.86	13.90	0.00	39.61	35.89	0.563	1.50	1.32	3.487	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.32	1.38	32.53	0.00	4.82	0.00	0.263	0.61	0.38	17.306	C
B	37.33	186.67	37.80	30.52	3.33	0.00	47.12	46.22	0.792	6.48	4.13	6.736	A
C	12.32	61.59	12.42	15.41	25.72	0.00	21.92	18.37	0.562	1.83	1.34	6.379	A
D	20.86	104.30	20.91	25.13	13.01	0.00	40.30	35.89	0.518	1.32	1.09	3.103	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.16	5.80	1.19	1.26	29.71	0.00	6.09	0.00	0.190	0.38	0.25	12.296	B
B	34.12	170.59	34.40	27.87	3.03	0.00	47.34	46.22	0.721	4.13	2.71	4.736	A
C	11.26	56.28	11.33	14.03	23.40	0.00	23.41	18.37	0.481	1.34	0.95	5.001	A
D	19.06	95.31	19.11	22.87	11.87	0.00	41.18	35.89	0.463	1.09	0.88	2.725	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.04	5.18	1.05	1.12	26.53	0.00	7.52	0.00	0.138	0.25	0.17	9.295	A
B	30.48	152.42	30.66	24.88	2.71	0.00	47.59	46.22	0.641	2.71	1.84	3.579	A
C	10.06	50.29	10.11	12.51	20.85	0.00	25.05	18.37	0.402	0.95	0.69	4.032	A
D	17.03	85.16	17.07	20.38	10.59	0.00	42.16	35.89	0.404	0.88	0.69	2.394	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.98	1.05	24.82	0.00	8.30	0.00	0.117	0.17	0.14	8.206	A
B	28.57	142.86	28.63	23.27	2.53	0.00	47.72	46.22	0.599	1.84	1.53	3.156	A
C	9.43	47.14	9.45	11.69	19.48	0.00	25.93	18.37	0.364	0.69	0.58	3.643	A
D	15.96	79.82	15.98	19.03	9.89	0.00	42.70	35.89	0.374	0.69	0.60	2.248	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	24.79	0.00	8.31	0.00	0.117	0.14	0.13	8.178	A
B	28.57	142.86	28.57	23.24	2.52	0.00	47.72	46.22	0.599	1.53	1.51	3.136	A
C	9.43	47.14	9.43	11.66	19.44	0.00	25.96	18.37	0.363	0.58	0.58	3.629	A
D	15.96	79.82	15.96	19.00	9.87	0.00	42.72	35.89	0.374	0.60	0.60	2.242	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	24.79	0.00	8.31	0.00	0.117	0.13	0.13	8.176	A
B	28.57	142.86	28.57	23.23	2.52	0.00	47.72	46.22	0.599	1.51	1.50	3.135	A
C	9.43	47.14	9.43	11.66	19.44	0.00	25.96	18.37	0.363	0.58	0.57	3.631	A
D	15.96	79.82	15.96	18.99	9.87	0.00	42.72	35.89	0.374	0.60	0.60	2.244	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.58	0.12	8.013	A	A
B	6.79	1.36	3.040	A	A
C	2.63	0.53	3.554	A	A
D	2.82	0.56	2.217	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.64	0.13	8.172	A	A
B	7.32	1.46	3.131	A	A
C	2.80	0.56	3.627	A	A
D	2.95	0.59	2.242	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.65	0.13	8.173	A	A
B	7.38	1.48	3.131	A	A
C	2.83	0.57	3.627	A	A
D	2.97	0.59	2.242	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.74	0.15	9.149	A	A
B	8.38	1.68	3.482	A	A
C	3.18	0.64	3.966	A	A
D	3.28	0.66	2.379	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.04	0.21	11.879	B	B
B	11.54	2.31	4.428	A	A
C	4.23	0.85	4.819	A	A
D	4.10	0.82	2.691	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.51	0.30	16.175	C	B
B	16.22	3.24	5.842	A	A
C	5.66	1.13	5.978	A	A
D	5.06	1.01	3.052	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.20	0.44	22.818	C	C
B	22.60	4.52	7.811	A	A
C	7.39	1.48	7.410	A	A
D	6.05	1.21	3.424	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.13	0.63	32.053	D	C
B	30.42	6.08	10.205	B	B
C	9.23	1.85	8.911	A	A
D	6.94	1.39	3.750	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.11	0.82	41.140	E	D
B	38.18	7.64	12.393	B	B
C	10.76	2.15	10.071	B	B
D	7.54	1.51	3.954	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.68	0.94	43.351	E	D
B	43.11	8.62	13.328	B	B
C	11.52	2.30	10.358	B	B
D	7.76	1.55	3.974	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.65	0.93	35.722	E	D
B	44.24	8.85	12.225	B	B
C	11.45	2.29	9.486	A	A
D	7.61	1.52	3.794	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.38	0.68	25.589	D	C
B	35.50	7.10	9.776	A	A
C	9.68	1.94	8.086	A	A
D	6.79	1.36	3.487	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.10	0.42	17.306	C	B
B	22.72	4.54	6.736	A	A
C	7.10	1.42	6.379	A	A
D	5.65	1.13	3.103	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.33	0.27	12.296	B	B
B	14.57	2.91	4.736	A	A
C	5.02	1.00	5.001	A	A
D	4.51	0.90	2.725	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.88	0.18	9.295	A	A
B	9.71	1.94	3.579	A	A
C	3.58	0.72	4.032	A	A
D	3.53	0.71	2.394	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.71	0.14	8.206	A	A
B	7.90	1.58	3.156	A	A
C	2.99	0.60	3.643	A	A
D	3.08	0.62	2.248	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.68	0.14	8.178	A	A
B	7.58	1.52	3.136	A	A
C	2.89	0.58	3.629	A	A
D	3.01	0.60	2.242	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.67	0.13	8.176	A	A
B	7.53	1.51	3.135	A	A
C	2.87	0.57	3.631	A	A
D	3.00	0.60	2.244	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A220 Saturday do nothing + committed development 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:02:15

» Year 2025 Saturday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Saturday Peak Hour + committed				
Arm A	6.91	159.04	1.06	F	-9 % [Arm A]
Arm B	4.18	6.86	0.81	A	
Arm C	3.55	13.33	0.79	B	
Arm D	1.39	3.89	0.58	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Saturday Peak Hour + committed, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 10:02:12

File summary

Title	3167A220 Saturday existing traffic + committed development 2025
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Saturday Peak Hour + committed, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2025 Saturday Peak Hour + committed, AM	Year 2025 Saturday Peak Hour + committed	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				12.86	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-9	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.50	100.000
B	ONE HOUR	✓	33.42	100.000
C	ONE HOUR	✓	14.87	100.000
D	ONE HOUR	✓	19.18	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.233	0.767	0.500
	B	0.783	1.283	11.650	19.700
	C	0.133	12.917	0.000	1.817
	D	0.417	16.200	1.067	1.500

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.35	0.59
	C	0.01	0.87	0.00	0.12
	D	0.02	0.84	0.06	0.08

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	1.06	159.04	6.91	F	2.30	206.79	162.75	47.22	1.81	162.76	47.22
B	0.81	6.86	4.18	A	30.71	2764.09	199.87	4.34	2.22	199.88	4.34
C	0.79	13.33	3.55	B	13.66	1229.71	148.07	7.22	1.65	148.08	7.23
D	0.58	3.89	1.39	A	17.63	1586.77	77.67	2.94	0.86	77.67	2.94

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.84	1.00	24.73	0.00	8.34	0.00	0.227	0.00	0.28	9.155	A
B	25.30	126.51	25.08	23.70	2.86	0.00	47.47	45.96	0.533	0.00	1.12	2.655	A
C	11.26	56.28	11.12	10.11	17.83	0.00	26.99	17.38	0.417	0.00	0.70	3.751	A
D	14.53	72.63	14.42	17.64	11.31	0.00	41.61	36.37	0.349	0.00	0.53	2.200	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	24.96	0.00	8.23	0.00	0.230	0.28	0.29	9.455	A
B	25.30	126.51	25.30	23.95	2.90	0.00	47.44	45.96	0.533	1.12	1.13	2.709	A
C	11.26	56.28	11.25	10.21	17.99	0.00	26.89	17.38	0.419	0.70	0.71	3.837	A
D	14.53	72.63	14.52	17.80	11.44	0.00	41.50	36.37	0.350	0.53	0.53	2.223	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	24.96	0.00	8.23	0.00	0.230	0.29	0.29	9.459	A
B	25.30	126.51	25.30	23.95	2.90	0.00	47.44	45.96	0.533	1.13	1.14	2.709	A
C	11.26	56.28	11.26	10.21	18.00	0.00	26.89	17.38	0.419	0.71	0.71	3.838	A
D	14.53	72.63	14.53	17.81	11.45	0.00	41.50	36.37	0.350	0.53	0.54	2.223	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.02	10.10	2.01	1.08	26.60	0.00	7.50	0.00	0.269	0.29	0.35	10.902	B
B	27.00	134.98	26.96	25.52	3.09	0.00	47.30	45.96	0.571	1.14	1.30	2.945	A
C	12.01	60.05	11.99	10.88	19.17	0.00	26.13	17.38	0.460	0.71	0.83	4.234	A
D	15.50	77.49	15.48	18.97	12.19	0.00	40.93	36.37	0.379	0.54	0.60	2.357	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.26	11.30	2.22	1.20	29.72	0.00	6.09	0.00	0.371	0.35	0.55	15.334	C
B	30.21	151.07	30.13	28.50	3.44	0.00	47.03	45.96	0.642	1.30	1.74	3.531	A
C	13.44	67.21	13.38	12.15	21.42	0.00	24.68	17.38	0.545	0.83	1.15	5.274	A
D	17.34	86.72	17.31	21.19	13.61	0.00	39.84	36.37	0.435	0.60	0.76	2.661	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.37	2.40	1.32	32.50	0.00	4.84	0.00	0.511	0.55	0.92	23.863	C
B	33.06	165.32	32.95	31.15	3.75	0.00	46.80	45.96	0.706	1.74	2.31	4.292	A
C	14.71	73.55	14.62	13.28	23.42	0.00	23.40	17.38	0.629	1.15	1.61	6.757	A
D	18.98	94.90	18.94	23.17	14.87	0.00	38.86	36.37	0.488	0.76	0.94	3.008	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.65	13.23	2.50	1.41	34.76	0.00	3.82	0.00	0.692	0.92	1.65	41.139	E
B	35.37	176.87	35.24	33.28	3.98	0.00	46.63	45.96	0.759	2.31	2.96	5.197	A
C	15.74	78.69	15.62	14.18	25.04	0.00	22.36	17.38	0.704	1.61	2.20	8.781	A
D	20.31	101.54	20.27	24.77	15.89	0.00	38.07	36.37	0.533	0.94	1.12	3.363	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.77	13.84	2.49	1.47	36.36	0.00	3.10	0.00	0.892	1.65	3.03	75.414	F
B	37.00	185.02	36.88	34.75	4.10	0.00	46.54	45.96	0.795	2.96	3.61	6.099	A
C	16.46	82.31	16.33	14.80	26.18	0.00	21.63	17.38	0.761	2.20	2.85	10.972	B
D	21.24	106.22	21.21	25.89	16.62	0.00	37.51	36.37	0.566	1.12	1.27	3.672	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.83	14.16	2.43	1.51	37.22	0.00	2.71	0.00	1.044	3.03	5.03	123.233	F
B	37.85	189.24	37.76	35.52	4.14	0.00	46.51	45.96	0.814	3.61	4.05	6.736	A
C	16.84	84.19	16.73	15.12	26.78	0.00	21.24	17.38	0.793	2.85	3.38	12.827	B
D	21.73	108.64	21.71	26.49	17.02	0.00	37.20	36.37	0.584	1.27	1.37	3.860	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.83	14.16	2.49	1.51	37.30	0.00	2.68	0.00	1.056	5.03	6.72	159.041	F
B	37.85	189.24	37.82	35.63	4.17	0.00	46.49	45.96	0.814	4.05	4.18	6.864	A
C	16.84	84.19	16.80	15.16	26.83	0.00	21.21	17.38	0.794	3.38	3.55	13.332	B
D	21.73	108.64	21.72	26.55	17.09	0.00	37.15	36.37	0.585	1.37	1.39	3.887	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.77	13.84	2.73	1.48	36.54	0.00	3.02	0.00	0.916	6.72	6.91	152.360	F
B	37.00	185.02	37.02	35.04	4.23	0.00	46.44	45.96	0.797	4.18	4.08	6.417	A
C	16.46	82.31	16.48	14.93	26.32	0.00	21.53	17.38	0.765	3.55	3.44	12.048	B
D	21.24	106.22	21.25	26.05	16.76	0.00	37.40	36.37	0.568	1.39	1.34	3.721	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.65	13.23	3.24	1.42	35.07	0.00	3.68	0.00	0.719	6.91	3.92	106.384	F
B	35.37	176.87	35.51	33.95	4.37	0.00	46.34	45.96	0.763	4.08	3.42	5.625	A
C	15.74	78.69	15.89	14.50	25.37	0.00	22.15	17.38	0.711	3.44	2.66	9.855	A
D	20.31	101.54	20.34	25.11	16.15	0.00	37.88	36.37	0.536	1.34	1.18	3.428	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.37	2.99	1.33	32.81	0.00	4.70	0.00	0.526	3.92	1.32	38.853	E
B	33.06	165.32	33.23	31.74	4.06	0.00	46.57	45.96	0.710	3.42	2.56	4.563	A
C	14.71	73.55	14.88	13.56	23.73	0.00	23.20	17.38	0.634	2.66	1.83	7.353	A
D	18.98	94.90	19.02	23.50	15.11	0.00	38.67	36.37	0.491	1.18	0.98	3.061	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.26	11.30	2.39	1.21	29.95	0.00	5.99	0.00	0.378	1.32	0.65	17.219	C
B	30.21	151.07	30.35	28.81	3.54	0.00	46.96	45.96	0.643	2.56	1.86	3.643	A
C	13.44	67.21	13.56	12.28	21.61	0.00	24.56	17.38	0.547	1.83	1.25	5.510	A
D	17.34	86.72	17.38	21.39	13.78	0.00	39.70	36.37	0.437	0.98	0.79	2.694	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.02	10.10	2.07	1.08	26.73	0.00	7.43	0.00	0.272	0.65	0.39	11.293	B
B	27.00	134.98	27.10	25.68	3.13	0.00	47.27	45.96	0.571	1.86	1.36	2.990	A
C	12.01	60.05	12.09	10.95	19.28	0.00	26.06	17.38	0.461	1.25	0.88	4.316	A
D	15.50	77.49	15.53	19.08	12.28	0.00	40.85	36.37	0.379	0.79	0.62	2.374	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.91	1.01	25.00	0.00	8.21	0.00	0.230	0.39	0.31	9.542	A
B	25.30	126.51	25.34	24.00	2.91	0.00	47.43	45.96	0.533	1.36	1.16	2.723	A
C	11.26	56.28	11.29	10.23	18.03	0.00	26.87	17.38	0.419	0.88	0.74	3.859	A
D	14.53	72.63	14.54	17.84	11.47	0.00	41.48	36.37	0.350	0.62	0.54	2.229	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	24.96	0.00	8.23	0.00	0.230	0.31	0.30	9.474	A
B	25.30	126.51	25.30	23.96	2.90	0.00	47.44	45.96	0.533	1.16	1.15	2.713	A
C	11.26	56.28	11.26	10.21	18.00	0.00	26.88	17.38	0.419	0.74	0.73	3.842	A
D	14.53	72.63	14.53	17.81	11.45	0.00	41.50	36.37	0.350	0.54	0.54	2.225	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	24.96	0.00	8.23	0.00	0.230	0.30	0.30	9.470	A
B	25.30	126.51	25.30	23.95	2.90	0.00	47.44	45.96	0.533	1.15	1.15	2.712	A
C	11.26	56.28	11.26	10.21	18.00	0.00	26.88	17.38	0.419	0.73	0.73	3.842	A
D	14.53	72.63	14.53	17.81	11.45	0.00	41.50	36.37	0.350	0.54	0.54	2.225	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.28	0.26	9.155	A	A
B	5.30	1.06	2.655	A	A
C	3.29	0.66	3.751	A	A
D	2.55	0.51	2.200	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.44	0.29	9.455	A	A
B	5.64	1.13	2.709	A	A
C	3.54	0.71	3.837	A	A
D	2.67	0.53	2.223	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.47	0.29	9.459	A	A
B	5.67	1.13	2.709	A	A
C	3.57	0.71	3.838	A	A
D	2.68	0.54	2.223	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.70	0.34	10.902	B	B
B	6.34	1.27	2.945	A	A
C	4.04	0.81	4.234	A	A
D	2.96	0.59	2.357	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.52	0.50	15.334	C	B
B	8.32	1.66	3.531	A	A
C	5.48	1.10	5.274	A	A
D	3.69	0.74	2.661	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.06	0.81	23.863	C	C
B	10.92	2.18	4.292	A	A
C	7.53	1.51	6.757	A	A
D	4.55	0.91	3.008	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.93	1.39	41.139	E	C
B	13.97	2.79	5.197	A	A
C	10.18	2.04	8.781	A	A
D	5.42	1.08	3.363	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.19	2.44	76.414	F	E
B	17.05	3.41	6.099	A	A
C	13.21	2.64	10.972	B	B
D	6.20	1.24	3.672	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.43	4.09	123.239	F	F
B	19.48	3.90	6.736	A	A
C	15.93	3.19	12.827	B	B
D	6.72	1.34	3.860	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	29.50	5.90	169.041	F	F
B	20.63	4.13	6.864	A	A
C	17.39	3.48	13.332	B	B
D	6.91	1.38	3.887	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	34.10	6.82	152.360	F	F
B	20.60	4.12	6.417	A	A
C	17.44	3.49	12.048	B	B
D	6.78	1.36	3.721	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	26.95	5.39	106.384	F	F
B	17.96	3.59	5.625	A	A
C	14.28	2.86	9.855	A	A
D	6.06	1.21	3.428	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.67	1.93	39.853	E	D
B	13.57	2.71	4.563	A	A
C	9.87	1.97	7.353	A	A
D	5.06	1.01	3.061	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.71	0.74	17.219	C	B
B	9.79	1.96	3.643	A	A
C	6.66	1.33	5.510	A	A
D	4.06	0.81	2.694	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.12	0.42	11.293	B	B
B	7.10	1.42	2.990	A	A
C	4.60	0.92	4.316	A	A
D	3.18	0.64	2.374	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.63	0.33	9.542	A	A
B	5.98	1.20	2.723	A	A
C	3.79	0.76	3.859	A	A
D	2.78	0.56	2.229	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.53	0.31	9.474	A	A
B	5.79	1.16	2.713	A	A
C	3.66	0.73	3.842	A	A
D	2.71	0.54	2.225	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.52	0.30	9.470	A	A
B	5.76	1.15	2.712	A	A
C	3.63	0.73	3.842	A	A
D	2.70	0.54	2.225	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A221 Friday PM total traffic with development 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:04:08

» Year 2025 Friday PM Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Friday PM Peak Hour + committed + development				
Arm A	1.14	52.12	0.57	F	-4 % [Arm A]
Arm B	11.26	16.70	0.94	C	
Arm C	2.78	12.32	0.75	B	
Arm D	1.69	4.15	0.63	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Friday PM Peak Hour + committed + development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 10:04:04

File summary

Title	3167A221 Year 2025, Friday PM Total traffic + development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Friday PM Peak Hour + committed + development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2025 Friday PM Peak Hour + committed + development, AM	Year 2025 Friday PM Peak Hour + committed + development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				12.85	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-4	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.28	100.000
B	ONE HOUR	✓	38.13	100.000
C	ONE HOUR	✓	12.57	100.000
D	ONE HOUR	✓	21.90	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.617	0.117	0.550
	B	0.900	1.133	13.617	22.483
	C	0.183	10.417	0.083	1.883
	D	0.300	18.233	1.583	1.783

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.48	0.09	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.83	0.01	0.15
	D	0.01	0.83	0.07	0.08

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.57	52.12	1.14	F	1.18	106.15	37.47	21.18	0.42	37.47	21.18
B	0.94	16.70	11.26	C	35.05	3154.23	400.03	7.61	4.44	400.06	7.61
C	0.75	12.32	2.78	B	11.55	1039.46	119.53	6.90	1.33	119.54	6.90
D	0.63	4.15	1.69	A	20.13	1811.48	92.75	3.07	1.03	92.76	3.07

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.95	1.04	24.94	0.00	8.24	0.00	0.118	0.00	0.13	8.195	A
B	28.87	144.37	28.57	22.80	3.08	0.00	47.30	45.28	0.610	0.00	1.53	3.144	A
C	9.52	47.58	9.40	11.54	20.11	0.00	25.52	17.82	0.373	0.00	0.58	3.692	A
D	16.58	82.91	16.46	20.00	9.51	0.00	42.99	36.78	0.386	0.00	0.62	2.252	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	25.16	0.00	8.14	0.00	0.119	0.13	0.13	8.366	A
B	28.87	144.37	28.87	23.02	3.12	0.00	47.28	45.28	0.611	1.53	1.55	3.256	A
C	9.52	47.58	9.51	11.66	20.33	0.00	25.39	17.82	0.375	0.58	0.59	3.779	A
D	16.58	82.91	16.58	20.21	9.63	0.00	42.90	36.78	0.387	0.62	0.63	2.279	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	25.16	0.00	8.14	0.00	0.119	0.13	0.13	8.368	A
B	28.87	144.37	28.87	23.02	3.12	0.00	47.28	45.28	0.611	1.55	1.55	3.259	A
C	9.52	47.58	9.51	11.66	20.33	0.00	25.39	17.82	0.375	0.59	0.60	3.779	A
D	16.58	82.91	16.58	20.22	9.63	0.00	42.90	36.78	0.387	0.63	0.63	2.279	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.04	5.18	1.03	1.12	26.81	0.00	7.40	0.00	0.140	0.13	0.16	9.410	A
B	30.81	154.03	30.75	24.53	3.32	0.00	47.12	45.28	0.654	1.55	1.83	3.650	A
C	10.15	50.76	10.13	12.42	21.65	0.00	24.54	17.82	0.414	0.60	0.69	4.159	A
D	17.69	88.46	17.68	21.53	10.25	0.00	42.42	36.78	0.417	0.63	0.71	2.424	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.16	5.80	1.15	1.25	29.96	0.00	5.98	0.00	0.194	0.16	0.23	12.408	B
B	34.48	172.39	34.32	27.40	3.71	0.00	46.83	45.28	0.736	1.83	2.65	4.725	A
C	11.36	56.81	11.31	13.86	24.16	0.00	22.92	17.82	0.496	0.69	0.95	5.150	A
D	19.80	99.01	19.76	24.03	11.44	0.00	41.50	36.78	0.477	0.71	0.90	2.755	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.25	1.36	32.77	0.00	4.72	0.00	0.269	0.23	0.34	17.167	C
B	37.73	188.65	37.48	29.96	4.05	0.00	46.57	45.28	0.810	2.65	3.89	6.402	A
C	12.43	62.17	12.36	15.14	26.39	0.00	21.49	17.82	0.579	0.95	1.31	6.516	A
D	21.67	108.34	21.62	26.25	12.51	0.00	40.68	36.78	0.533	0.90	1.12	3.140	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.79	1.32	1.45	35.05	0.00	3.69	0.00	0.368	0.34	0.52	24.841	C
B	40.37	201.84	40.01	32.04	4.33	0.00	46.36	45.28	0.871	3.89	5.69	8.853	A
C	13.30	66.51	13.21	16.17	28.17	0.00	20.35	17.82	0.654	1.31	1.77	8.286	A
D	23.18	115.92	23.14	28.02	13.36	0.00	40.02	36.78	0.579	1.12	1.34	3.542	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.42	7.11	1.37	1.52	36.67	0.00	2.96	0.00	0.480	0.52	0.78	36.359	E
B	42.23	211.14	41.77	33.51	4.53	0.00	46.22	45.28	0.914	5.69	7.99	11.986	B
C	13.92	69.58	13.82	16.88	29.41	0.00	19.55	17.82	0.712	1.77	2.26	10.239	B
D	24.25	121.26	24.21	29.26	13.97	0.00	39.55	36.78	0.613	1.34	1.54	3.898	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.45	7.27	1.40	1.55	37.54	0.00	2.57	0.00	0.565	0.78	1.04	48.516	E
B	43.19	215.95	42.75	34.31	4.63	0.00	46.14	45.28	0.936	7.99	10.19	15.061	C
C	14.23	71.17	14.16	17.28	30.10	0.00	19.10	17.82	0.745	2.26	2.65	11.831	B
D	24.80	124.02	24.78	29.95	14.31	0.00	39.29	36.78	0.631	1.54	1.67	4.123	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.45	7.27	1.43	1.56	37.61	0.00	2.54	0.00	0.572	1.04	1.14	52.123	F
B	43.19	215.95	42.98	34.39	4.65	0.00	46.12	45.28	0.936	10.19	11.26	16.700	C
C	14.23	71.17	14.21	17.36	30.26	0.00	19.00	17.82	0.749	2.65	2.78	12.321	B
D	24.80	124.02	24.80	30.10	14.37	0.00	39.25	36.78	0.632	1.67	1.69	4.148	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.42	7.11	1.44	1.53	36.83	0.00	2.89	0.00	0.492	1.14	1.07	42.154	E
B	42.23	211.14	42.24	33.70	4.57	0.00	46.18	45.28	0.914	11.26	11.21	15.580	C
C	13.92	69.58	13.93	17.06	29.75	0.00	19.33	17.82	0.720	2.78	2.70	11.217	B
D	24.25	121.26	24.26	29.58	14.10	0.00	39.46	36.78	0.615	1.69	1.63	3.956	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.79	1.44	1.48	35.33	0.00	3.56	0.00	0.381	1.07	0.69	29.032	D
B	40.37	201.84	41.01	32.36	4.40	0.00	46.31	45.28	0.872	11.21	7.97	12.334	B
C	13.30	66.51	13.41	16.54	28.88	0.00	19.89	17.82	0.669	2.70	2.16	9.433	A
D	23.18	115.92	23.22	28.70	13.59	0.00	39.85	36.78	0.582	1.63	1.43	3.618	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.33	1.39	33.06	0.00	4.59	0.00	0.277	0.69	0.41	18.678	C
B	37.73	188.65	38.38	30.27	4.11	0.00	46.53	45.28	0.811	7.97	4.71	7.849	A
C	12.43	62.17	12.56	15.48	27.01	0.00	21.09	17.82	0.590	2.16	1.51	7.144	A
D	21.67	108.34	21.72	26.85	12.73	0.00	40.51	36.78	0.535	1.43	1.17	3.201	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.16	5.80	1.19	1.26	30.19	0.00	5.88	0.00	0.197	0.41	0.26	12.873	B
B	34.48	172.39	34.83	27.63	3.75	0.00	46.80	45.28	0.737	4.71	2.95	5.152	A
C	11.36	56.81	11.46	14.06	24.52	0.00	22.69	17.82	0.501	1.51	1.04	5.386	A
D	19.80	99.01	19.85	24.38	11.60	0.00	41.38	36.78	0.478	1.17	0.93	2.794	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.04	5.18	1.05	1.12	26.95	0.00	7.34	0.00	0.141	0.26	0.17	9.574	A
B	30.81	154.03	31.01	24.66	3.34	0.00	47.11	45.28	0.654	2.95	1.95	3.771	A
C	10.15	50.76	10.21	12.52	21.83	0.00	24.42	17.82	0.416	1.04	0.73	4.241	A
D	17.69	88.46	17.73	21.71	10.34	0.00	42.36	36.78	0.418	0.93	0.73	2.442	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.98	1.05	25.20	0.00	8.12	0.00	0.120	0.17	0.14	8.404	A
B	28.87	144.37	28.94	23.06	3.12	0.00	47.27	45.28	0.611	1.95	1.61	3.286	A
C	9.52	47.58	9.54	11.69	20.38	0.00	25.35	17.82	0.375	0.73	0.61	3.798	A
D	16.58	82.91	16.60	20.27	9.65	0.00	42.88	36.78	0.387	0.73	0.64	2.284	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	25.17	0.00	8.14	0.00	0.119	0.14	0.14	8.371	A
B	28.87	144.37	28.88	23.02	3.12	0.00	47.28	45.28	0.611	1.61	1.59	3.264	A
C	9.52	47.58	9.52	11.66	20.33	0.00	25.38	17.82	0.375	0.61	0.61	3.781	A
D	16.58	82.91	16.58	20.22	9.63	0.00	42.90	36.78	0.387	0.64	0.63	2.279	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.86	0.97	1.05	25.16	0.00	8.14	0.00	0.119	0.14	0.14	8.369	A
B	28.87	144.37	28.88	23.02	3.12	0.00	47.28	45.28	0.611	1.59	1.58	3.263	A
C	9.52	47.58	9.52	11.66	20.33	0.00	25.38	17.82	0.375	0.61	0.60	3.780	A
D	16.58	82.91	16.58	20.22	9.63	0.00	42.90	36.78	0.387	0.63	0.63	2.279	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.60	0.12	8.195	A	A
B	7.11	1.42	3.144	A	A
C	2.75	0.55	3.692	A	A
D	2.98	0.60	2.252	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.66	0.13	8.366	A	A
B	7.69	1.54	3.256	A	A
C	2.95	0.59	3.779	A	A
D	3.12	0.62	2.279	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.67	0.13	8.368	A	A
B	7.76	1.55	3.259	A	A
C	2.97	0.59	3.779	A	A
D	3.13	0.63	2.279	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.76	0.15	9.410	A	A
B	8.84	1.77	3.650	A	A
C	3.36	0.67	4.159	A	A
D	3.46	0.69	2.424	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.08	0.22	12.408	B	B
B	12.37	2.47	4.725	A	A
C	4.54	0.91	5.150	A	A
D	4.35	0.87	2.755	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.59	0.32	17.167	C	B
B	17.78	3.56	6.402	A	A
C	6.18	1.24	6.516	A	A
D	5.40	1.08	3.140	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.37	0.47	24.841	C	C
B	25.51	5.10	8.853	A	A
C	8.26	1.65	8.286	A	A
D	6.49	1.30	3.542	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.48	0.70	36.359	E	D
B	35.56	7.11	11.986	B	B
C	10.55	2.11	10.239	B	B
D	7.47	1.49	3.898	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.71	0.94	48.516	E	D
B	46.29	9.26	15.061	C	B
C	12.56	2.51	11.831	B	B
D	8.15	1.63	4.123	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.50	1.10	52.123	F	D
B	53.87	10.77	16.700	C	B
C	13.64	2.73	12.321	B	B
D	8.40	1.68	4.148	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.51	1.10	42.154	E	D
B	56.16	11.23	15.580	C	B
C	13.68	2.74	11.217	B	B
D	8.25	1.65	3.956	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.86	0.77	29.032	D	C
B	44.23	8.85	12.334	B	B
C	11.50	2.30	9.433	A	A
D	7.34	1.47	3.618	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.28	0.46	18.678	C	B
B	26.24	5.25	7.849	A	A
C	8.09	1.62	7.144	A	A
D	6.07	1.21	3.201	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.40	0.28	12.873	B	B
B	16.01	3.20	5.152	A	A
C	5.49	1.10	5.386	A	A
D	4.82	0.96	2.794	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.91	0.18	9.574	A	A
B	10.36	2.07	3.771	A	A
C	3.81	0.76	4.241	A	A
D	3.74	0.75	2.442	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.73	0.15	8.404	A	A
B	8.34	1.67	3.286	A	A
C	3.15	0.63	3.798	A	A
D	3.25	0.65	2.284	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.69	0.14	8.371	A	A
B	7.99	1.60	3.264	A	A
C	3.04	0.61	3.781	A	A
D	3.18	0.64	2.279	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.69	0.14	8.369	A	A
B	7.93	1.59	3.263	A	A
C	3.02	0.60	3.780	A	A
D	3.17	0.63	2.279	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A222 Saturday total traffic with development 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:06:02

» Year 2025 Saturday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Saturday Peak Hour + committed + development				
Arm A	9.34	207.78	1.16	F	-11 % [Arm A]
Arm B	4.77	7.78	0.83	A	
Arm C	4.42	16.66	0.83	C	
Arm D	1.50	4.04	0.60	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Saturday Peak Hour + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 10:05:58

File summary

Title	3167A222 Year 2025, Saturday total traffic with development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Saturday Peak Hour + committed + development, AM

Data Errors and Warnings

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

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2025 Saturday Peak Hour + committed + development, AM	Year 2025 Saturday Peak Hour + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				15.61	C

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-11	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

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	3.50	5.40	2.70	8.00	60.00	25.00	
B	7.60	11.40	75.00	24.00	60.00	60.00	
C	3.80	11.10	36.00	18.10	60.00	50.00	
D	7.40	12.00	32.00	28.00	60.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.450	19.471
B		(calculated)	(calculated)	0.753	49.626
C		(calculated)	(calculated)	0.643	38.451
D		(calculated)	(calculated)	0.771	50.328

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.50	100.000
B	ONE HOUR	✓	33.82	100.000
C	ONE HOUR	✓	14.98	100.000
D	ONE HOUR	✓	19.98	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.233	0.767	0.500
	B	0.783	1.283	11.650	20.100
	C	0.133	12.583	0.000	2.267
	D	0.417	16.217	1.067	2.283

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.34	0.59
	C	0.01	0.84	0.00	0.15
	D	0.02	0.81	0.05	0.11

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	1.16	207.78	9.34	F	2.30	206.79	212.70	61.72	2.36	212.71	61.72
B	0.83	7.78	4.77	A	31.08	2797.17	220.04	4.72	2.44	220.05	4.72
C	0.83	16.66	4.42	C	13.77	1239.36	171.75	8.31	1.91	171.76	8.32
D	0.60	4.04	1.50	A	18.37	1652.94	83.19	3.02	0.92	83.20	3.02

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.84	1.00	25.07	0.00	8.18	0.00	0.231	0.00	0.29	9.374	A
B	25.61	128.03	25.37	23.46	3.45	0.00	47.03	44.93	0.544	0.00	1.17	2.743	A
C	11.35	56.73	11.20	10.11	18.71	0.00	26.42	16.79	0.429	0.00	0.74	3.917	A
D	15.13	75.66	15.02	18.86	11.05	0.00	41.80	37.22	0.362	0.00	0.56	2.231	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	25.31	0.00	8.07	0.00	0.234	0.29	0.30	9.696	A
B	25.61	128.03	25.60	23.71	3.49	0.00	46.99	44.93	0.545	1.17	1.18	2.804	A
C	11.35	56.73	11.34	10.21	18.89	0.00	26.31	16.79	0.431	0.74	0.75	4.007	A
D	15.13	75.66	15.13	19.04	11.19	0.00	41.70	37.22	0.363	0.56	0.57	2.258	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	25.31	0.00	8.07	0.00	0.234	0.30	0.30	9.702	A
B	25.61	128.03	25.60	23.71	3.50	0.00	46.99	44.93	0.545	1.18	1.19	2.804	A
C	11.35	56.73	11.34	10.21	18.89	0.00	26.31	16.79	0.431	0.75	0.75	4.009	A
D	15.13	75.66	15.13	19.04	11.19	0.00	41.70	37.22	0.363	0.57	0.57	2.258	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.02	10.10	2.01	1.08	26.97	0.00	7.33	0.00	0.276	0.30	0.36	11.247	B
B	27.32	136.59	27.28	25.26	3.72	0.00	46.82	44.93	0.583	1.19	1.37	3.063	A
C	12.10	60.52	12.08	10.88	20.13	0.00	25.52	16.79	0.474	0.75	0.88	4.456	A
D	16.14	80.72	16.13	20.29	11.92	0.00	41.14	37.22	0.392	0.57	0.64	2.398	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.26	11.30	2.22	1.20	30.13	0.00	5.91	0.00	0.383	0.36	0.58	16.078	C
B	30.58	152.88	30.48	28.20	4.15	0.00	46.50	44.93	0.658	1.37	1.86	3.719	A
C	13.55	67.74	13.47	12.14	22.48	0.00	24.00	16.79	0.564	0.88	1.25	5.657	A
D	18.07	90.34	18.03	22.66	13.30	0.00	40.07	37.22	0.451	0.64	0.81	2.714	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.37	2.39	1.31	32.95	0.00	4.64	0.00	0.533	0.58	0.99	25.757	D
B	33.46	167.29	33.33	30.82	4.52	0.00	46.22	44.93	0.724	1.86	2.50	4.604	A
C	14.82	74.12	14.72	13.27	24.58	0.00	22.65	16.79	0.654	1.25	1.78	7.461	A
D	19.77	98.86	19.73	24.77	14.53	0.00	39.12	37.22	0.505	0.81	1.00	3.087	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.65	13.23	2.47	1.41	35.22	0.00	3.61	0.00	0.733	0.99	1.85	46.461	E
B	35.80	178.99	35.64	32.90	4.79	0.00	46.02	44.93	0.778	2.50	3.27	5.681	A
C	15.86	79.31	15.71	14.16	26.27	0.00	21.57	16.79	0.735	1.78	2.52	9.958	A
D	21.15	105.77	21.11	26.47	15.52	0.00	38.36	37.22	0.551	1.00	1.20	3.469	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.77	13.84	2.42	1.47	36.84	0.00	2.89	0.00	0.959	1.85	3.60	90.590	F
B	37.45	187.24	37.29	34.33	4.93	0.00	45.91	44.93	0.816	3.27	4.05	6.790	A
C	16.59	82.96	16.42	14.77	27.45	0.00	20.81	16.79	0.797	2.52	3.39	13.006	B
D	22.13	110.64	22.09	27.66	16.21	0.00	37.83	37.22	0.585	1.20	1.37	3.803	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.83	14.16	2.31	1.51	37.71	0.00	2.49	0.00	1.137	3.60	6.23	155.547	F
B	38.30	191.50	38.19	35.06	4.96	0.00	45.89	44.93	0.835	4.05	4.60	7.599	A
C	16.97	84.85	16.82	15.07	28.08	0.00	20.41	16.79	0.832	3.39	4.14	15.716	C
D	22.63	113.17	22.61	28.29	16.61	0.00	37.52	37.22	0.603	1.37	1.48	4.016	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.83	14.16	2.34	1.51	37.81	0.00	2.45	0.00	1.156	6.23	8.68	207.778	F
B	38.30	191.50	38.27	35.18	4.98	0.00	45.88	44.93	0.835	4.60	4.77	7.780	A
C	16.97	84.85	16.91	15.11	28.14	0.00	20.37	16.79	0.833	4.14	4.42	16.660	C
D	22.63	113.17	22.63	28.36	16.69	0.00	37.45	37.22	0.604	1.48	1.50	4.044	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.77	13.84	2.64	1.48	37.05	0.00	2.79	0.00	0.993	8.68	9.34	206.714	F
B	37.45	187.24	37.47	34.64	5.05	0.00	45.82	44.93	0.817	4.77	4.67	7.246	A
C	16.59	82.96	16.61	14.90	27.62	0.00	20.70	16.79	0.801	4.42	4.31	14.972	B
D	22.13	110.64	22.14	27.84	16.39	0.00	37.69	37.22	0.587	1.50	1.45	3.863	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.65	13.23	3.10	1.42	35.62	0.00	3.43	0.00	0.771	9.34	7.06	153.935	F
B	35.80	178.99	35.96	33.60	5.12	0.00	45.77	44.93	0.782	4.67	3.84	6.244	A
C	15.86	79.31	16.08	14.47	26.62	0.00	21.35	16.79	0.743	4.31	3.20	11.883	B
D	21.15	105.77	21.19	26.85	15.85	0.00	38.11	37.22	0.555	1.45	1.28	3.554	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.47	12.37	3.56	1.33	33.32	0.00	4.47	0.00	0.553	7.06	1.65	89.918	F
B	33.46	167.29	33.66	31.75	5.12	0.00	45.77	44.93	0.731	3.84	2.86	5.037	A
C	14.82	74.12	15.04	13.74	25.04	0.00	22.36	16.79	0.663	3.20	2.10	8.436	A
D	19.77	98.86	19.82	25.26	14.83	0.00	38.89	37.22	0.508	1.28	1.05	3.154	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.26	11.30	2.45	1.21	30.40	0.00	5.78	0.00	0.391	1.65	0.70	18.820	C
B	30.58	152.88	30.75	28.57	4.28	0.00	46.40	44.93	0.659	2.86	2.00	3.876	A
C	13.55	67.74	13.69	12.31	22.72	0.00	23.85	16.79	0.568	2.10	1.37	5.991	A
D	18.07	90.34	18.11	22.91	13.50	0.00	39.92	37.22	0.453	1.05	0.84	2.756	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.02	10.10	2.08	1.08	27.12	0.00	7.26	0.00	0.278	0.70	0.40	11.704	B
B	27.32	136.59	27.43	25.44	3.77	0.00	46.79	44.93	0.584	2.00	1.44	3.119	A
C	12.10	60.52	12.19	10.95	20.25	0.00	25.44	16.79	0.476	1.37	0.93	4.560	A
D	16.14	80.72	16.18	20.41	12.02	0.00	41.06	37.22	0.393	0.84	0.66	2.417	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.91	1.01	25.36	0.00	8.05	0.00	0.235	0.40	0.32	9.798	A
B	25.61	128.03	25.65	23.76	3.51	0.00	46.98	44.93	0.545	1.44	1.22	2.818	A
C	11.35	56.73	11.38	10.23	18.93	0.00	26.29	16.79	0.432	0.93	0.78	4.034	A
D	15.13	75.66	15.15	19.08	11.22	0.00	41.67	37.22	0.363	0.66	0.58	2.263	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	25.32	0.00	8.07	0.00	0.235	0.32	0.31	9.716	A
B	25.61	128.03	25.61	23.72	3.50	0.00	46.99	44.93	0.545	1.22	1.21	2.808	A
C	11.35	56.73	11.35	10.21	18.89	0.00	26.31	16.79	0.431	0.78	0.77	4.011	A
D	15.13	75.66	15.13	19.05	11.20	0.00	41.69	37.22	0.363	0.58	0.57	2.260	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.89	9.46	1.89	1.01	25.32	0.00	8.07	0.00	0.234	0.31	0.31	9.712	A
B	25.61	128.03	25.61	23.71	3.50	0.00	46.99	44.93	0.545	1.21	1.21	2.805	A
C	11.35	56.73	11.35	10.21	18.89	0.00	26.31	16.79	0.431	0.77	0.76	4.011	A
D	15.13	75.66	15.13	19.04	11.19	0.00	41.69	37.22	0.363	0.57	0.57	2.260	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.31	0.26	9.374	A	A
B	5.53	1.11	2.743	A	A
C	3.45	0.69	3.917	A	A
D	2.69	0.54	2.231	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.48	0.30	9.696	A	A
B	5.90	1.18	2.804	A	A
C	3.72	0.74	4.007	A	A
D	2.82	0.56	2.258	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.50	0.30	9.702	A	A
B	5.94	1.19	2.804	A	A
C	3.75	0.75	4.009	A	A
D	2.83	0.57	2.258	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.74	0.35	11.247	B	B
B	6.67	1.33	3.063	A	A
C	4.27	0.85	4.456	A	A
D	3.13	0.63	2.398	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.63	0.53	16.078	C	B
B	8.84	1.77	3.719	A	A
C	5.88	1.18	5.657	A	A
D	3.92	0.78	2.714	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.33	0.87	25.757	D	C
B	11.77	2.35	4.604	A	A
C	8.28	1.66	7.461	A	A
D	4.85	0.97	3.087	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.66	1.53	46.481	E	C
B	15.31	3.06	5.681	A	A
C	11.53	2.31	9.958	A	A
D	5.81	1.16	3.469	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.12	2.82	90.590	F	F
B	19.01	3.80	6.790	A	A
C	15.47	3.09	13.006	B	B
D	6.67	1.33	3.803	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.81	4.96	155.547	F	F
B	22.01	4.40	7.599	A	A
C	19.27	3.85	15.716	C	B
D	7.26	1.45	4.016	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	37.36	7.47	207.778	F	F
B	23.49	4.70	7.780	A	A
C	21.51	4.30	16.660	C	B
D	7.47	1.49	4.044	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	45.06	9.01	206.714	F	F
B	23.55	4.71	7.246	A	A
C	21.82	4.36	14.972	B	B
D	7.34	1.47	3.863	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	40.99	8.20	153.935	F	F
B	20.32	4.06	6.244	A	A
C	17.42	3.48	11.883	B	B
D	6.56	1.31	3.554	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.58	3.72	69.918	F	E
B	15.24	3.05	5.037	A	A
C	11.45	2.29	8.436	A	A
D	5.44	1.09	3.154	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.11	0.82	18.820	C	B
B	10.58	2.12	3.876	A	A
C	7.33	1.47	5.991	A	A
D	4.33	0.87	2.756	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.20	0.44	11.704	B	B
B	7.51	1.50	3.119	A	A
C	4.91	0.98	4.560	A	A
D	3.37	0.67	2.417	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.67	0.33	9.798	A	A
B	6.28	1.26	2.818	A	A
C	4.01	0.80	4.034	A	A
D	2.94	0.59	2.263	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.58	0.32	9.716	A	A
B	6.07	1.21	2.808	A	A
C	3.85	0.77	4.011	A	A
D	2.87	0.57	2.260	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.56	0.31	9.712	A	A
B	6.03	1.21	2.805	A	A
C	3.83	0.77	4.011	A	A
D	2.86	0.57	2.260	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A223 Friday PM do nothing + committed development 2025 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:17:10

» Year 2025 Friday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Friday Peak Hour + committed				
Arm A	3.83	9.26	0.80	A	-1 % [Arm D]
Arm B	3.57	22.28	0.80	C	
Arm C	3.05	13.92	0.77	B	
Arm D	17.88	37.79	0.99	E	
Arm E	0.74	21.21	0.44	C	

Values shown are the maximum values 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.

"D1 - Year 2025 Friday Peak Hour + committed, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 10:17:04

File summary

Title	3167A223 Year 2025, Friday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Friday Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2025 Friday Peak Hour + committed, AM	Year 2025 Friday Peak Hour + committed	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				22.42	C

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-1	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	22.87	100.000
B	ONE HOUR	✓	9.10	100.000
C	ONE HOUR	✓	12.22	100.000
D	ONE HOUR	✓	26.57	100.000
E	ONE HOUR	✓	1.93	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.067	0.817	5.600	14.967	0.417
	B	2.650	0.000	2.550	3.817	0.083
	C	5.167	2.733	0.000	4.167	0.150
	D	12.983	6.267	6.900	0.000	0.417
	E	0.750	0.283	0.183	0.717	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.05	0.04	0.24	0.65	0.02
	B	0.29	0.00	0.28	0.42	0.01
	C	0.42	0.22	0.00	0.34	0.01
	D	0.49	0.24	0.26	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.80	9.26	3.83	A	21.02	1891.44	173.83	5.51	1.93	173.84	5.51
B	0.80	22.28	3.57	C	8.36	752.71	139.41	11.11	1.55	139.42	11.11
C	0.77	13.92	3.05	B	11.23	1010.51	133.32	7.92	1.48	133.33	7.92
D	0.99	37.79	17.88	E	24.42	2197.48	533.33	14.56	5.93	533.37	14.56
E	0.44	21.21	0.74	C	1.78	159.92	32.57	12.22	0.36	32.57	12.22

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.13	16.87	12.74	0.00	36.15	31.11	0.479	0.00	0.90	3.126	A
B	6.89	34.45	6.77	7.54	22.34	0.00	18.26	9.88	0.377	0.00	0.59	5.175	A
C	9.25	46.25	9.12	11.38	17.73	0.00	22.81	15.77	0.405	0.00	0.67	4.327	A
D	20.12	100.58	19.82	17.70	9.15	0.00	33.24	29.65	0.605	0.00	1.48	4.382	A
E	1.46	7.32	1.43	0.80	28.18	0.00	10.71	4.35	0.137	0.00	0.15	6.447	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.31	17.12	12.93	0.00	36.04	31.11	0.480	0.90	0.91	3.204	A
B	6.89	34.45	6.89	7.65	22.60	0.00	18.13	9.88	0.380	0.59	0.60	5.331	A
C	9.25	46.25	9.25	11.53	17.95	0.00	22.70	15.77	0.408	0.67	0.68	4.460	A
D	20.12	100.58	20.11	17.92	9.29	0.00	33.16	29.65	0.607	1.48	1.51	4.591	A
E	1.46	7.32	1.46	0.81	28.59	0.00	10.54	4.35	0.139	0.15	0.16	6.607	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.31	17.12	12.93	0.00	36.03	31.11	0.481	0.91	0.92	3.204	A
B	6.89	34.45	6.89	7.65	22.60	0.00	18.13	9.88	0.380	0.60	0.61	5.337	A
C	9.25	46.25	9.25	11.53	17.96	0.00	22.69	15.77	0.408	0.68	0.68	4.462	A
D	20.12	100.58	20.11	17.92	9.29	0.00	33.16	29.65	0.607	1.51	1.52	4.595	A
E	1.46	7.32	1.46	0.81	28.59	0.00	10.54	4.35	0.139	0.16	0.16	6.609	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.47	92.36	18.44	18.22	13.76	0.00	35.52	31.11	0.520	0.92	1.06	3.507	A
B	7.35	36.76	7.33	8.14	24.07	0.00	17.42	9.88	0.422	0.61	0.71	5.931	A
C	9.87	49.35	9.85	12.28	19.12	0.00	22.08	15.77	0.447	0.68	0.79	4.896	A
D	21.46	107.31	21.40	19.08	9.89	0.00	32.81	29.65	0.654	1.52	1.81	5.225	A
E	1.56	7.81	1.56	0.86	30.43	0.00	9.79	4.35	0.160	0.16	0.19	7.284	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.68	103.38	20.60	20.31	15.33	0.00	34.55	31.11	0.598	1.06	1.44	4.275	A
B	8.23	41.14	8.17	9.07	26.86	0.00	16.08	9.88	0.512	0.71	1.00	7.527	A
C	11.05	55.23	10.99	13.69	21.34	0.00	20.91	15.77	0.528	0.79	1.08	6.007	A
D	24.02	120.10	23.84	21.30	11.03	0.00	32.16	29.65	0.747	1.81	2.73	7.042	A
E	1.75	8.74	1.73	0.96	33.91	0.00	8.36	4.35	0.209	0.19	0.26	9.029	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.12	22.52	22.16	16.72	0.00	33.69	31.11	0.672	1.44	1.95	5.318	A
B	9.00	45.02	8.92	9.90	29.35	0.00	14.88	9.88	0.605	1.00	1.43	9.908	A
C	12.09	60.44	12.01	14.94	23.32	0.00	19.87	15.77	0.608	1.08	1.47	7.550	A
D	26.29	131.43	25.98	23.28	12.05	0.00	31.57	29.65	0.833	2.73	4.25	10.128	B
E	1.91	9.56	1.89	1.05	36.99	0.00	7.10	4.35	0.269	0.26	0.35	11.459	B

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.21	121.03	24.08	23.61	17.80	0.00	33.02	31.11	0.733	1.95	2.57	6.604	A
B	9.63	48.17	9.52	10.54	31.34	0.00	13.92	9.88	0.692	1.43	2.01	13.215	B
C	12.93	64.66	12.83	15.93	24.92	0.00	19.02	15.77	0.680	1.47	1.96	9.512	A
D	28.12	140.62	27.63	24.88	12.88	0.00	31.09	29.65	0.904	4.25	6.74	15.048	C
E	2.05	10.23	2.02	1.12	39.39	0.00	6.12	4.35	0.334	0.35	0.47	14.538	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.32	126.61	25.20	24.59	18.52	0.00	32.58	31.11	0.777	2.57	3.20	7.945	A
B	10.08	50.39	9.94	10.98	32.73	0.00	13.25	9.88	0.761	2.01	2.70	17.215	C
C	13.53	67.64	13.42	16.61	26.06	0.00	18.42	15.77	0.734	1.96	2.49	11.667	B
D	29.42	147.10	28.70	26.02	13.46	0.00	30.75	29.65	0.957	6.74	10.36	21.938	C
E	2.14	10.70	2.12	1.16	40.99	0.00	5.46	4.35	0.392	0.47	0.60	17.756	C

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.90	129.49	25.80	25.13	18.91	0.00	32.33	31.11	0.801	3.20	3.67	8.968	A
B	10.31	51.53	10.19	11.22	33.49	0.00	12.88	9.88	0.800	2.70	3.31	20.829	C
C	13.84	69.18	13.75	16.98	26.70	0.00	18.09	15.77	0.765	2.49	2.91	13.416	B
D	30.09	150.45	29.26	26.66	13.80	0.00	30.56	29.65	0.984	10.36	14.50	29.844	D
E	2.19	10.95	2.17	1.19	41.87	0.00	5.11	4.35	0.429	0.60	0.69	20.237	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.90	129.49	25.87	25.29	19.04	0.00	32.25	31.11	0.803	3.67	3.83	9.261	A
B	10.31	51.53	10.26	11.29	33.62	0.00	12.82	9.88	0.804	3.31	3.57	22.275	C
C	13.84	69.18	13.81	17.07	26.80	0.00	18.03	15.77	0.767	2.91	3.05	13.918	B
D	30.09	150.45	29.49	26.75	13.86	0.00	30.53	29.65	0.986	14.50	17.51	36.385	E
E	2.19	10.95	2.18	1.20	42.15	0.00	4.99	4.35	0.439	0.69	0.74	21.208	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.32	126.61	25.34	25.02	18.88	0.00	32.35	31.11	0.783	3.83	3.75	8.623	A
B	10.08	50.39	10.09	11.17	33.05	0.00	13.09	9.88	0.770	3.57	3.52	20.274	C
C	13.53	67.64	13.54	16.86	26.28	0.00	18.31	15.77	0.739	3.05	2.98	12.731	B
D	29.42	147.10	29.34	26.23	13.60	0.00	30.68	29.65	0.959	17.51	17.88	37.788	E
E	2.14	10.70	2.14	1.18	41.76	0.00	5.15	4.35	0.416	0.74	0.73	20.000	C

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.21	121.03	24.34	24.50	18.58	0.00	32.54	31.11	0.744	3.75	3.11	7.453	A
B	9.63	48.17	9.80	10.94	31.97	0.00	13.61	9.88	0.708	3.52	2.71	16.394	C
C	12.93	64.66	13.05	16.44	25.32	0.00	18.81	15.77	0.687	2.98	2.38	10.665	B
D	28.12	140.62	29.04	25.25	13.12	0.00	30.95	29.65	0.909	17.88	13.29	31.972	D
E	2.05	10.23	2.06	1.15	41.01	0.00	5.45	4.35	0.375	0.73	0.64	17.835	C

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.12	22.79	23.21	17.67	0.00	33.10	31.11	0.683	3.11	2.27	5.915	A
B	9.00	45.02	9.19	10.37	30.08	0.00	14.52	9.88	0.620	2.71	1.76	11.626	B
C	12.09	60.44	12.22	15.54	23.74	0.00	19.65	15.77	0.615	2.38	1.69	8.233	A
D	26.29	131.43	27.72	23.67	12.30	0.00	31.43	29.65	0.836	13.29	6.13	18.351	C
E	1.91	9.56	1.95	1.08	38.93	0.00	6.31	4.35	0.303	0.64	0.46	13.877	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.68	103.38	20.82	20.83	15.78	0.00	34.27	31.11	0.603	2.27	1.57	4.504	A
B	8.23	41.14	8.35	9.30	27.29	0.00	15.87	9.88	0.518	1.76	1.13	8.114	A
C	11.05	55.23	11.15	14.00	21.65	0.00	20.75	15.77	0.532	1.69	1.18	6.315	A
D	24.02	120.10	24.60	21.59	11.21	0.00	32.06	29.65	0.749	6.13	3.25	8.559	A
E	1.75	8.74	1.78	0.98	34.83	0.00	7.99	4.35	0.219	0.46	0.29	9.717	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.47	92.36	18.56	18.46	13.95	0.00	35.40	31.11	0.522	1.57	1.12	3.581	A
B	7.35	36.76	7.43	8.24	24.28	0.00	17.32	9.88	0.424	1.13	0.76	6.106	A
C	9.87	49.35	9.94	12.42	19.29	0.00	21.99	15.77	0.449	1.18	0.84	5.007	A
D	21.46	107.31	21.71	19.24	9.98	0.00	32.76	29.65	0.655	3.25	1.99	5.549	A
E	1.56	7.81	1.58	0.87	30.83	0.00	9.63	4.35	0.162	0.29	0.20	7.473	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.35	17.19	12.98	0.00	36.00	31.11	0.481	1.12	0.94	3.222	A
B	6.89	34.45	6.92	7.67	22.66	0.00	18.10	9.88	0.381	0.76	0.63	5.379	A
C	9.25	46.25	9.28	11.57	18.00	0.00	22.67	15.77	0.408	0.84	0.70	4.491	A
D	20.12	100.58	20.19	17.97	9.32	0.00	33.14	29.65	0.607	1.99	1.60	4.665	A
E	1.46	7.32	1.47	0.81	28.70	0.00	10.50	4.35	0.139	0.20	0.17	6.652	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.32	17.13	12.94	0.00	36.03	31.11	0.481	0.94	0.93	3.206	A
B	6.89	34.45	6.89	7.65	22.61	0.00	18.13	9.88	0.380	0.63	0.62	5.344	A
C	9.25	46.25	9.25	11.54	17.96	0.00	22.69	15.77	0.408	0.70	0.70	4.465	A
D	20.12	100.58	20.12	17.92	9.29	0.00	33.16	29.65	0.607	1.60	1.57	4.608	A
E	1.46	7.32	1.46	0.81	28.60	0.00	10.54	4.35	0.139	0.17	0.16	6.616	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.31	86.57	17.32	17.13	12.94	0.00	36.03	31.11	0.481	0.93	0.93	3.205	A
B	6.89	34.45	6.89	7.65	22.60	0.00	18.13	9.88	0.380	0.62	0.62	5.342	A
C	9.25	46.25	9.25	11.54	17.96	0.00	22.69	15.77	0.408	0.70	0.69	4.465	A
D	20.12	100.58	20.12	17.92	9.29	0.00	33.16	29.65	0.607	1.57	1.56	4.603	A
E	1.46	7.32	1.46	0.81	28.60	0.00	10.54	4.35	0.139	0.16	0.16	6.611	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.25	0.85	3.126	A	A
B	2.74	0.55	5.175	A	A
C	3.11	0.62	4.327	A	A
D	6.77	1.35	4.382	A	A
E	0.72	0.14	6.447	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.55	0.91	3.204	A	A
B	2.99	0.60	5.331	A	A
C	3.37	0.67	4.460	A	A
D	7.49	1.50	4.591	A	A
E	0.79	0.16	6.607	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.58	0.92	3.204	A	A
B	3.03	0.61	5.337	A	A
C	3.40	0.68	4.462	A	A
D	7.58	1.52	4.595	A	A
E	0.80	0.16	6.609	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.16	1.03	3.507	A	A
B	3.43	0.69	5.931	A	A
C	3.82	0.76	4.896	A	A
D	8.70	1.74	5.225	A	A
E	0.90	0.18	7.284	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.87	1.37	4.275	A	A
B	4.71	0.94	7.527	A	A
C	5.11	1.02	6.007	A	A
D	12.51	2.50	7.042	A	A
E	1.21	0.24	9.029	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.20	1.84	5.318	A	A
B	6.61	1.32	9.908	A	A
C	6.89	1.38	7.550	A	A
D	18.92	3.78	10.128	B	B
E	1.66	0.33	11.459	B	B

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.02	2.40	6.604	A	A
B	9.19	1.84	13.215	B	B
C	9.13	1.83	9.512	A	A
D	29.04	5.81	15.048	C	B
E	2.21	0.44	14.538	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.01	3.00	7.945	A	A
B	12.31	2.46	17.215	C	B
C	11.60	2.32	11.667	B	B
D	44.02	8.80	21.938	C	C
E	2.81	0.56	17.756	C	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.51	3.50	8.968	A	A
B	15.36	3.07	20.829	C	C
C	13.77	2.75	13.416	B	B
D	62.91	12.58	29.844	D	C
E	3.31	0.66	20.237	C	C

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.80	3.76	9.261	A	A
B	17.28	3.46	22.275	C	C
C	14.95	2.99	13.918	B	B
D	80.35	16.07	36.385	E	D
E	3.60	0.72	21.208	C	C

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.93	3.79	8.623	A	A
B	17.72	3.54	20.274	C	C
C	15.05	3.01	12.731	B	B
D	88.51	17.70	37.788	E	D
E	3.66	0.73	20.000	C	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.43	3.29	7.453	A	A
B	14.71	2.94	16.394	C	B
C	12.70	2.54	10.665	B	B
D	73.69	14.74	31.972	D	C
E	3.34	0.67	17.835	C	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.14	2.43	5.915	A	A
B	9.69	1.94	11.626	B	B
C	9.11	1.82	8.233	A	A
D	39.83	7.97	18.351	C	B
E	2.47	0.49	13.877	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.33	1.67	4.504	A	A
B	6.10	1.22	8.114	A	A
C	6.30	1.26	6.315	A	A
D	18.18	3.64	8.559	A	A
E	1.56	0.31	9.717	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.85	1.17	3.581	A	A
B	4.04	0.81	6.106	A	A
C	4.40	0.88	5.007	A	A
D	10.74	2.15	5.549	A	A
E	1.05	0.21	7.473	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.86	0.97	3.222	A	A
B	3.27	0.65	5.379	A	A
C	3.64	0.73	4.491	A	A
D	8.36	1.67	4.665	A	A
E	0.86	0.17	6.652	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.69	0.94	3.206	A	A
B	3.13	0.63	5.344	A	A
C	3.50	0.70	4.465	A	A
D	7.91	1.58	4.608	A	A
E	0.82	0.16	6.616	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.66	0.93	3.205	A	A
B	3.10	0.62	5.342	A	A
C	3.48	0.70	4.465	A	A
D	7.83	1.57	4.603	A	A
E	0.82	0.16	6.611	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A224 Saturday do nothing + committed development 2025 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:10:16

» Year 2025 Saturday Peak Hour + committed, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Saturday Peak Hour + committed				
Arm A	2.37	6.01	0.71	A	3 % [Arm D]
Arm B	2.18	13.44	0.70	B	
Arm C	1.79	9.34	0.65	A	
Arm D	11.65	24.98	0.95	C	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Saturday Peak Hour + committed, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 10:10:13

File summary

Title	3167A224 Year 2025, Saturday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Saturday Peak Hour + committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relati
Year 2025 Saturday Peak Hour + committed, AM	Year 2025 Saturday Peak Hour + committed	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				14.95	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	3	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.47	100.000
B	ONE HOUR	✓	8.98	100.000
C	ONE HOUR	✓	10.50	100.000
D	ONE HOUR	✓	26.35	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.900	4.350	14.967	0.000
	B	2.633	0.000	1.933	4.417	0.000
	C	4.567	2.300	0.000	3.633	0.000
	D	14.583	5.800	5.967	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.20	0.70	0.00
	B	0.29	0.00	0.22	0.49	0.00
	C	0.43	0.22	0.00	0.35	0.00
	D	0.55	0.22	0.23	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.71	6.01	2.37	A	19.73	1775.63	122.21	4.13	1.36	122.22	4.13
B	0.70	13.44	2.18	B	8.26	743.06	99.57	8.04	1.11	99.58	8.04
C	0.65	9.34	1.79	A	9.65	868.52	88.60	6.12	0.98	88.61	6.12
D	0.95	24.98	11.65	C	24.22	2179.56	395.59	10.89	4.40	395.62	10.89
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.10	17.20	10.50	0.00	37.54	33.72	0.433	0.00	0.75	2.781	A
B	6.80	34.01	6.70	6.72	19.88	0.00	19.44	10.16	0.350	0.00	0.53	4.673	A
C	7.95	39.75	7.85	9.16	17.42	0.00	22.98	14.53	0.346	0.00	0.52	3.938	A
D	19.95	99.76	19.68	17.24	8.03	0.00	33.88	30.19	0.589	0.00	1.38	4.148	A
E	0.00	0.00	0.00	0.00	27.71	0.00	10.90	3.97	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.25	17.44	10.65	0.00	37.45	33.72	0.434	0.75	0.76	2.830	A
B	6.80	34.01	6.80	6.81	20.09	0.00	19.34	10.16	0.352	0.53	0.54	4.782	A
C	7.95	39.75	7.95	9.27	17.61	0.00	22.88	14.53	0.348	0.52	0.53	4.019	A
D	19.95	99.76	19.95	17.43	8.14	0.00	33.82	30.19	0.590	1.38	1.41	4.320	A
E	0.00	0.00	0.00	0.00	28.08	0.00	10.75	3.97	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.25	17.44	10.65	0.00	37.45	33.72	0.434	0.76	0.76	2.830	A
B	6.80	34.01	6.80	6.81	20.09	0.00	19.34	10.16	0.352	0.54	0.54	4.785	A
C	7.95	39.75	7.95	9.28	17.62	0.00	22.87	14.53	0.348	0.53	0.53	4.020	A
D	19.95	99.76	19.95	17.43	8.14	0.00	33.82	30.19	0.590	1.41	1.42	4.324	A
E	0.00	0.00	0.00	0.00	28.09	0.00	10.75	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.34	86.71	17.32	18.57	11.34	0.00	37.02	33.72	0.468	0.76	0.87	3.043	A
B	7.26	36.29	7.24	7.26	21.40	0.00	18.71	10.16	0.388	0.54	0.62	5.216	A
C	8.48	42.41	8.47	9.88	18.77	0.00	22.27	14.53	0.381	0.53	0.60	4.341	A
D	21.29	106.43	21.24	18.57	8.67	0.00	33.52	30.19	0.635	1.42	1.68	4.859	A
E	0.00	0.00	0.00	0.00	29.90	0.00	10.00	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.41	97.05	19.36	20.71	12.64	0.00	36.21	33.72	0.536	0.87	1.13	3.547	A
B	8.12	40.61	8.08	8.09	23.91	0.00	17.50	10.16	0.464	0.62	0.84	6.336	A
C	9.49	47.47	9.46	11.02	20.96	0.00	21.11	14.53	0.450	0.60	0.79	5.130	A
D	23.82	119.12	23.67	20.74	9.68	0.00	32.93	30.19	0.723	1.68	2.45	6.358	A
E	0.00	0.00	0.00	0.00	33.35	0.00	8.59	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.24	106.20	21.18	22.62	13.80	0.00	35.50	33.72	0.598	1.13	1.44	4.162	A
B	8.89	44.44	8.83	8.84	26.14	0.00	16.43	10.16	0.541	0.84	1.12	7.831	A
C	10.39	51.94	10.34	12.04	22.93	0.00	20.07	14.53	0.518	0.79	1.03	6.130	A
D	26.07	130.36	25.83	22.68	10.58	0.00	32.41	30.19	0.804	2.45	3.65	8.754	A
E	0.00	0.00	0.00	0.00	36.42	0.00	7.34	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.72	113.62	22.66	24.14	14.72	0.00	34.93	33.72	0.651	1.44	1.79	4.856	A
B	9.51	47.55	9.44	9.43	27.94	0.00	15.56	10.16	0.611	1.12	1.47	9.675	A
C	11.12	55.58	11.06	12.86	24.52	0.00	19.23	14.53	0.578	1.03	1.30	7.282	A
D	27.89	139.47	27.53	24.26	11.32	0.00	31.99	30.19	0.872	3.65	5.45	12.330	B
E	0.00	0.00	0.00	0.00	38.85	0.00	6.34	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.77	118.86	23.71	25.19	15.35	0.00	34.54	33.72	0.688	1.79	2.11	5.496	A
B	9.95	49.74	9.88	9.85	29.21	0.00	14.94	10.16	0.666	1.47	1.83	11.627	B
C	11.63	58.14	11.58	13.43	25.66	0.00	18.63	14.53	0.624	1.30	1.57	8.414	A
D	29.18	145.90	28.70	25.39	11.85	0.00	31.69	30.19	0.921	5.45	7.84	17.024	C
E	0.00	0.00	0.00	0.00	40.55	0.00	5.65	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.31	121.57	24.27	25.79	15.71	0.00	34.32	33.72	0.708	2.11	2.32	5.931	A
B	10.17	50.87	10.12	10.08	29.90	0.00	14.61	10.16	0.696	1.83	2.10	13.098	B
C	11.89	59.46	11.86	13.74	26.28	0.00	18.31	14.53	0.650	1.57	1.75	9.210	A
D	29.84	149.22	29.36	26.00	12.13	0.00	31.52	30.19	0.947	7.84	10.26	21.885	C
E	0.00	0.00	0.00	0.00	41.49	0.00	5.26	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.31	121.57	24.30	25.92	15.81	0.00	34.26	33.72	0.710	2.32	2.37	6.008	A
B	10.17	50.87	10.16	10.13	29.98	0.00	14.57	10.16	0.698	2.10	2.18	13.440	B
C	11.89	59.46	11.88	13.81	26.33	0.00	18.28	14.53	0.651	1.75	1.79	9.335	A
D	29.84	149.22	29.57	26.05	12.16	0.00	31.50	30.19	0.947	10.26	11.65	24.976	C
E	0.00	0.00	0.00	0.00	41.73	0.00	5.16	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.77	118.86	23.79	25.52	15.58	0.00	34.40	33.72	0.691	2.37	2.31	5.672	A
B	9.95	49.74	9.96	9.97	29.40	0.00	14.86	10.16	0.670	2.18	2.12	12.350	B
C	11.63	58.14	11.64	13.57	25.78	0.00	18.57	14.53	0.626	1.79	1.74	8.696	A
D	29.18	145.90	29.18	25.51	11.92	0.00	31.65	30.19	0.922	11.65	11.65	24.085	C
E	0.00	0.00	0.00	0.00	41.09	0.00	5.42	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.72	113.62	22.79	24.78	15.18	0.00	34.64	33.72	0.656	2.31	1.98	5.098	A
B	9.51	47.55	9.59	9.68	28.29	0.00	15.39	10.16	0.618	2.12	1.73	10.514	B
C	11.12	55.58	11.17	13.14	24.74	0.00	19.12	14.53	0.581	1.74	1.46	7.615	A
D	27.89	139.47	28.52	24.47	11.44	0.00	31.92	30.19	0.894	11.65	8.50	19.401	C
E	0.00	0.00	0.00	0.00	39.97	0.00	5.88	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.24	106.20	21.32	23.27	14.27	0.00	35.21	33.72	0.603	1.98	1.57	4.351	A
B	8.89	44.44	8.98	9.09	26.50	0.00	16.25	10.16	0.547	1.73	1.27	8.362	A
C	10.39	51.94	10.45	12.33	23.15	0.00	19.96	14.53	0.521	1.46	1.13	6.363	A
D	26.07	130.36	26.83	22.90	10.71	0.00	32.34	30.19	0.806	8.50	4.70	11.915	B
E	0.00	0.00	0.00	0.00	37.54	0.00	6.88	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.41	97.05	19.48	21.08	12.90	0.00	36.06	33.72	0.538	1.57	1.19	3.639	A
B	8.12	40.61	8.19	8.24	24.15	0.00	17.38	10.16	0.467	1.27	0.91	6.583	A
C	9.49	47.47	9.55	11.19	21.15	0.00	21.01	14.53	0.452	1.13	0.85	5.262	A
D	23.82	119.12	24.20	20.92	9.78	0.00	32.88	30.19	0.725	4.70	2.82	7.190	A
E	0.00	0.00	0.00	0.00	33.98	0.00	8.33	3.97	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.34	86.71	17.40	18.76	11.46	0.00	36.94	33.72	0.469	1.19	0.90	3.081	A
B	7.26	36.29	7.31	7.33	21.54	0.00	18.64	10.16	0.389	0.91	0.65	5.317	A
C	8.48	42.41	8.53	9.96	18.88	0.00	22.21	14.53	0.382	0.85	0.63	4.399	A
D	21.29	106.43	21.49	18.68	8.73	0.00	33.48	30.19	0.636	2.82	1.82	5.083	A
E	0.00	0.00	0.00	0.00	30.22	0.00	9.88	3.97	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.28	17.49	10.68	0.00	37.43	33.72	0.434	0.90	0.78	2.842	A
B	6.80	34.01	6.82	6.83	20.13	0.00	19.32	10.16	0.352	0.65	0.56	4.808	A
C	7.95	39.75	7.97	9.30	17.65	0.00	22.86	14.53	0.348	0.63	0.54	4.035	A
D	19.95	99.76	20.02	17.46	8.16	0.00	33.81	30.19	0.590	1.82	1.48	4.375	A
E	0.00	0.00	0.00	0.00	28.18	0.00	10.71	3.97	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.26	17.44	10.65	0.00	37.45	33.72	0.434	0.78	0.77	2.831	A
B	6.80	34.01	6.80	6.82	20.09	0.00	19.34	10.16	0.352	0.56	0.55	4.789	A
C	7.95	39.75	7.95	9.28	17.62	0.00	22.87	14.53	0.348	0.54	0.54	4.023	A
D	19.95	99.76	19.96	17.43	8.14	0.00	33.82	30.19	0.590	1.48	1.46	4.331	A
E	0.00	0.00	0.00	0.00	28.10	0.00	10.74	3.97	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.27	16.25	17.44	10.65	0.00	37.45	33.72	0.434	0.77	0.77	2.830	A
B	6.80	34.01	6.80	6.82	20.09	0.00	19.34	10.16	0.352	0.55	0.55	4.788	A
C	7.95	39.75	7.95	9.28	17.62	0.00	22.87	14.53	0.348	0.54	0.54	4.022	A
D	19.95	99.76	19.95	17.43	8.14	0.00	33.82	30.19	0.590	1.46	1.45	4.328	A
E	0.00	0.00	0.00	0.00	28.09	0.00	10.75	3.97	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.57	0.71	2.781	A	A
B	2.46	0.49	4.673	A	A
C	2.44	0.49	3.938	A	A
D	6.38	1.28	4.148	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.78	0.76	2.830	A	A
B	2.66	0.53	4.782	A	A
C	2.62	0.52	4.019	A	A
D	7.01	1.40	4.320	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.81	0.76	2.830	A	A
B	2.68	0.54	4.785	A	A
C	2.64	0.53	4.020	A	A
D	7.09	1.42	4.324	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.23	0.85	3.043	A	A
B	3.00	0.60	5.216	A	A
C	2.94	0.59	4.341	A	A
D	8.07	1.61	4.859	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.43	1.09	3.547	A	A
B	3.97	0.79	6.336	A	A
C	3.80	0.76	5.130	A	A
D	11.34	2.27	6.358	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.91	1.38	4.162	A	A
B	5.29	1.06	7.831	A	A
C	4.92	0.98	6.130	A	A
D	16.51	3.30	8.754	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.55	1.71	4.856	A	A
B	6.89	1.38	9.675	A	A
C	6.19	1.24	7.282	A	A
D	24.09	4.82	12.330	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.11	2.02	5.496	A	A
B	8.59	1.72	11.627	B	B
C	7.46	1.49	8.414	A	A
D	34.36	6.87	17.024	C	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.26	2.25	5.931	A	A
B	10.01	2.00	13.098	B	B
C	8.44	1.69	9.210	A	A
D	45.97	9.19	21.885	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.76	2.35	6.008	A	A
B	10.73	2.15	13.440	B	B
C	8.88	1.78	9.335	A	A
D	55.04	11.01	24.976	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.66	2.33	5.672	A	A
B	10.73	2.15	12.350	B	B
C	8.80	1.76	8.696	A	A
D	58.25	11.65	24.085	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.31	2.06	5.098	A	A
B	9.16	1.83	10.514	B	B
C	7.62	1.52	7.615	A	A
D	47.19	9.44	19.401	C	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.21	1.64	4.351	A	A
B	6.79	1.36	8.362	A	A
C	5.94	1.19	6.363	A	A
D	26.70	5.34	11.915	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.23	1.25	3.639	A	A
B	4.82	0.96	6.583	A	A
C	4.45	0.89	5.262	A	A
D	15.48	3.10	7.190	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.67	0.93	3.081	A	A
B	3.44	0.69	5.317	A	A
C	3.29	0.66	4.399	A	A
D	9.74	1.95	5.083	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.99	0.80	2.842	A	A
B	2.87	0.57	4.808	A	A
C	2.79	0.56	4.035	A	A
D	7.74	1.55	4.375	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.88	0.78	2.831	A	A
B	2.76	0.55	4.789	A	A
C	2.70	0.54	4.023	A	A
D	7.36	1.47	4.331	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.86	0.77	2.830	A	A
B	2.74	0.55	4.788	A	A
C	2.69	0.54	4.022	A	A
D	7.29	1.46	4.328	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A225 Friday PM total traffic with development 2025 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:12:06

» Year 2025 Friday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Friday Peak Hour + committed + development				
Arm A	4.93	11.32	0.84	B	0 % [Arm D]
Arm B	4.13	25.92	0.83	D	
Arm C	3.40	15.54	0.79	C	
Arm D	15.95	34.48	0.98	D	
Arm E	0.76	21.94	0.45	C	

Values shown are the maximum values 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.

"D1 - Year 2025 Friday Peak Hour + committed + development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 02/07/2015 10:12:03

File summary

Title	3167A225 Year 2025, Friday PM peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Friday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2025 Friday Peak Hour + committed + development, AM	Year 2025 Friday Peak Hour + committed + development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				22.26	

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	0	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	24.37	100.000
B	ONE HOUR	✓	9.12	100.000
C	ONE HOUR	✓	12.28	100.000
D	ONE HOUR	✓	25.88	100.000
E	ONE HOUR	✓	1.93	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.383	1.000	6.233	15.333	0.417
	B	2.733	0.000	2.550	3.750	0.083
	C	5.583	2.733	0.000	3.817	0.150
	D	12.983	6.150	6.333	0.000	0.417
	E	0.750	0.283	0.183	0.717	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.26	0.63	0.02
	B	0.30	0.00	0.28	0.41	0.01
	C	0.45	0.22	0.00	0.31	0.01
	D	0.50	0.24	0.24	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.84	11.32	4.93	B	22.39	2015.51	209.95	6.25	2.33	209.97	6.25
B	0.83	25.92	4.13	D	8.38	754.09	153.52	12.21	1.71	153.53	12.22
C	0.79	15.54	3.40	C	11.29	1016.03	143.85	8.49	1.60	143.86	8.50
D	0.98	34.48	15.95	D	23.79	2140.96	488.56	13.69	5.43	488.59	13.69
E	0.45	21.94	0.76	C	1.78	159.92	33.09	12.41	0.37	33.09	12.41

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.25	17.48	12.23	0.00	36.47	31.59	0.506	0.00	1.00	3.258	A
B	6.90	34.52	6.78	7.59	22.89	0.00	17.99	10.05	0.384	0.00	0.61	5.299	A
C	9.30	46.50	9.16	11.43	18.25	0.00	22.54	15.82	0.413	0.00	0.69	4.442	A
D	19.60	97.99	19.31	17.65	9.76	0.00	32.89	29.10	0.596	0.00	1.42	4.337	A
E	1.46	7.32	1.43	0.80	28.28	0.00	10.67	4.17	0.137	0.00	0.16	6.475	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.45	17.74	12.41	0.00	36.36	31.59	0.507	1.00	1.02	3.350	A
B	6.90	34.52	6.90	7.70	23.17	0.00	17.86	10.05	0.387	0.61	0.62	5.471	A
C	9.30	46.50	9.30	11.58	18.48	0.00	22.42	15.82	0.415	0.69	0.70	4.573	A
D	19.60	97.99	19.59	17.88	9.90	0.00	32.81	29.10	0.597	1.42	1.45	4.535	A
E	1.46	7.32	1.46	0.81	28.69	0.00	10.50	4.17	0.139	0.16	0.16	6.638	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.45	17.74	12.42	0.00	36.35	31.59	0.508	1.02	1.02	3.350	A
B	6.90	34.52	6.90	7.70	23.17	0.00	17.86	10.05	0.387	0.62	0.62	5.477	A
C	9.30	46.50	9.30	11.58	18.49	0.00	22.42	15.82	0.415	0.70	0.70	4.574	A
D	19.60	97.99	19.60	17.88	9.91	0.00	32.80	29.10	0.597	1.45	1.46	4.538	A
E	1.46	7.32	1.46	0.81	28.69	0.00	10.50	4.17	0.139	0.16	0.16	6.640	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.68	98.42	19.65	18.88	13.21	0.00	35.86	31.59	0.549	1.02	1.19	3.693	A
B	7.36	36.82	7.34	8.19	24.67	0.00	17.13	10.05	0.430	0.62	0.73	6.113	A
C	9.92	49.62	9.90	12.33	19.68	0.00	21.78	15.82	0.456	0.70	0.81	5.038	A
D	20.91	104.55	20.85	19.04	10.54	0.00	32.44	29.10	0.645	1.46	1.74	5.153	A
E	1.56	7.81	1.56	0.86	30.54	0.00	9.74	4.17	0.160	0.16	0.19	7.328	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.03	110.16	21.94	21.04	14.72	0.00	34.93	31.59	0.631	1.19	1.65	4.585	A
B	8.24	41.21	8.18	9.13	27.53	0.00	15.75	10.05	0.523	0.73	1.05	7.845	A
C	11.11	55.53	11.04	13.75	21.96	0.00	20.58	15.82	0.540	0.81	1.13	6.245	A
D	23.40	117.01	23.23	21.25	11.76	0.00	31.74	29.10	0.737	1.74	2.60	6.901	A
E	1.75	8.74	1.73	0.96	34.03	0.00	8.31	4.17	0.210	0.19	0.26	9.097	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.11	120.54	23.98	22.96	16.06	0.00	34.10	31.59	0.707	1.65	2.28	5.847	A
B	9.02	45.10	8.93	9.96	30.08	0.00	14.53	10.05	0.621	1.05	1.52	10.513	B
C	12.15	60.77	12.07	15.01	23.99	0.00	19.51	15.82	0.623	1.13	1.56	7.953	A
D	25.61	128.05	25.33	23.21	12.85	0.00	31.11	29.10	0.823	2.60	4.03	9.837	A
E	1.91	9.56	1.89	1.05	37.13	0.00	7.05	4.17	0.271	0.26	0.36	11.593	B

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.79	128.97	25.63	24.47	17.10	0.00	33.45	31.59	0.771	2.28	3.09	7.484	A
B	9.65	48.25	9.52	10.62	32.11	0.00	13.54	10.05	0.713	1.52	2.18	14.344	B
C	13.00	65.02	12.89	16.00	25.63	0.00	18.65	15.82	0.697	1.56	2.11	10.186	B
D	27.40	137.00	26.94	24.80	13.72	0.00	30.61	29.10	0.896	4.03	6.30	14.463	B
E	2.05	10.23	2.02	1.12	39.55	0.00	6.05	4.17	0.338	0.36	0.48	14.767	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	26.98	134.91	26.81	25.50	17.80	0.00	33.02	31.59	0.817	3.09	3.97	9.305	A
B	10.10	50.48	9.93	11.07	33.55	0.00	12.86	10.05	0.785	2.18	3.01	19.171	C
C	13.60	68.01	13.48	16.69	26.79	0.00	18.04	15.82	0.754	2.11	2.72	12.701	B
D	28.66	143.31	28.01	25.93	14.34	0.00	30.25	29.10	0.948	6.30	9.55	20.866	C
E	2.14	10.70	2.11	1.16	41.19	0.00	5.38	4.17	0.398	0.48	0.61	18.168	C

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	27.60	137.99	27.46	26.07	18.19	0.00	32.78	31.59	0.842	3.97	4.67	10.801	B
B	10.33	51.63	10.17	11.31	34.34	0.00	12.47	10.05	0.828	3.01	3.77	23.777	C
C	13.91	69.56	13.81	17.07	27.44	0.00	17.70	15.82	0.786	2.72	3.21	14.821	B
D	29.32	146.58	28.59	26.56	14.69	0.00	30.05	29.10	0.976	9.55	13.19	28.080	D
E	2.19	10.95	2.17	1.19	42.09	0.00	5.01	4.17	0.437	0.61	0.71	20.854	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	27.60	137.99	27.55	26.24	18.32	0.00	32.70	31.59	0.844	4.67	4.93	11.316	B
B	10.33	51.63	10.25	11.38	34.48	0.00	12.41	10.05	0.832	3.77	4.13	25.922	D
C	13.91	69.56	13.87	17.17	27.56	0.00	17.63	15.82	0.789	3.21	3.40	15.540	C
D	29.32	146.58	28.81	26.67	14.77	0.00	30.00	29.10	0.977	13.19	15.73	33.785	D
E	2.19	10.95	2.18	1.20	42.37	0.00	4.90	4.17	0.447	0.71	0.76	21.936	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	26.98	134.91	27.00	25.94	18.14	0.00	32.81	31.59	0.822	4.93	4.86	10.453	B
B	10.10	50.48	10.10	11.25	33.89	0.00	12.69	10.05	0.796	4.13	4.10	23.626	C
C	13.60	68.01	13.62	16.94	27.05	0.00	17.90	15.82	0.760	3.40	3.34	14.186	B
D	28.66	143.31	28.62	26.17	14.50	0.00	30.16	29.10	0.950	15.73	15.95	34.482	D
E	2.14	10.70	2.14	1.18	41.94	0.00	5.08	4.17	0.422	0.76	0.75	20.509	C

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.79	128.97	25.99	25.36	17.80	0.00	33.02	31.59	0.781	4.86	3.90	8.799	A
B	9.65	48.25	9.85	11.00	32.79	0.00	13.22	10.05	0.730	4.10	3.09	18.817	C
C	13.00	65.02	13.14	16.51	26.14	0.00	18.38	15.82	0.707	3.34	2.64	11.786	B
D	27.40	137.00	28.22	25.25	14.02	0.00	30.43	29.10	0.903	15.95	11.83	28.739	D
E	2.05	10.23	2.07	1.15	41.10	0.00	5.42	4.17	0.378	0.75	0.65	18.042	C

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.11	120.54	24.35	23.98	16.88	0.00	33.59	31.59	0.718	3.90	2.71	6.658	A
B	9.02	45.10	9.26	10.40	30.82	0.00	14.17	10.05	0.637	3.09	1.91	12.730	B
C	12.15	60.77	12.32	15.57	24.51	0.00	19.24	15.82	0.632	2.64	1.83	8.864	A
D	25.61	128.05	26.84	23.68	13.15	0.00	30.94	29.10	0.828	11.83	5.67	16.589	C
E	1.91	9.56	1.95	1.08	38.91	0.00	6.32	4.17	0.303	0.65	0.46	13.857	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.03	110.16	22.21	21.57	15.12	0.00	34.68	31.59	0.635	2.71	1.81	4.880	A
B	8.24	41.21	8.39	9.35	27.98	0.00	15.54	10.05	0.531	1.91	1.19	8.552	A
C	11.11	55.53	11.22	14.05	22.32	0.00	20.40	15.82	0.545	1.83	1.25	6.624	A
D	23.40	117.01	23.92	21.57	11.97	0.00	31.62	29.10	0.740	5.67	3.08	8.239	A
E	1.75	8.74	1.78	0.98	34.91	0.00	7.95	4.17	0.220	0.46	0.29	9.770	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.68	98.42	19.80	19.12	13.39	0.00	35.75	31.59	0.551	1.81	1.26	3.788	A
B	7.36	36.82	7.45	8.29	24.89	0.00	17.03	10.05	0.433	1.19	0.79	6.314	A
C	9.92	49.62	10.00	12.47	19.87	0.00	21.69	15.82	0.458	1.25	0.87	5.166	A
D	20.91	104.55	21.14	19.21	10.65	0.00	32.37	29.10	0.646	3.08	1.91	5.450	A
E	1.56	7.81	1.58	0.87	30.93	0.00	9.58	4.17	0.163	0.29	0.20	7.516	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.49	17.81	12.46	0.00	36.32	31.59	0.508	1.26	1.05	3.374	A
B	6.90	34.52	6.93	7.72	23.23	0.00	17.83	10.05	0.387	0.79	0.65	5.522	A
C	9.30	46.50	9.33	11.62	18.54	0.00	22.39	15.82	0.415	0.87	0.73	4.605	A
D	19.60	97.99	19.67	17.93	9.94	0.00	32.79	29.10	0.598	1.91	1.54	4.604	A
E	1.46	7.32	1.47	0.81	28.80	0.00	10.46	4.17	0.140	0.20	0.17	6.682	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.45	17.75	12.42	0.00	36.35	31.59	0.508	1.05	1.04	3.355	A
B	6.90	34.52	6.90	7.70	23.17	0.00	17.85	10.05	0.387	0.65	0.64	5.484	A
C	9.30	46.50	9.30	11.59	18.49	0.00	22.41	15.82	0.415	0.73	0.72	4.579	A
D	19.60	97.99	19.60	17.89	9.91	0.00	32.80	29.10	0.597	1.54	1.51	4.552	A
E	1.46	7.32	1.46	0.81	28.70	0.00	10.50	4.17	0.139	0.17	0.16	6.646	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.45	92.25	18.45	17.75	12.42	0.00	36.35	31.59	0.508	1.04	1.04	3.354	A
B	6.90	34.52	6.90	7.70	23.17	0.00	17.85	10.05	0.387	0.64	0.64	5.481	A
C	9.30	46.50	9.30	11.59	18.49	0.00	22.41	15.82	0.415	0.72	0.72	4.576	A
D	19.60	97.99	19.60	17.88	9.91	0.00	32.80	29.10	0.597	1.51	1.50	4.548	A
E	1.46	7.32	1.46	0.81	28.70	0.00	10.50	4.17	0.139	0.16	0.16	6.644	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.71	0.94	3.258	A	A
B	2.81	0.56	5.299	A	A
C	3.20	0.64	4.442	A	A
D	6.54	1.31	4.337	A	A
E	0.72	0.14	6.475	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.06	1.01	3.350	A	A
B	3.07	0.61	5.471	A	A
C	3.47	0.69	4.573	A	A
D	7.21	1.44	4.535	A	A
E	0.79	0.16	6.638	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.10	1.02	3.350	A	A
B	3.11	0.62	5.477	A	A
C	3.50	0.70	4.574	A	A
D	7.30	1.46	4.538	A	A
E	0.80	0.16	6.640	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.76	1.15	3.693	A	A
B	3.53	0.71	6.113	A	A
C	3.95	0.79	5.038	A	A
D	8.37	1.67	5.153	A	A
E	0.90	0.18	7.328	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.79	1.56	4.585	A	A
B	4.90	0.98	7.845	A	A
C	5.32	1.06	6.245	A	A
D	11.98	2.40	6.901	A	A
E	1.22	0.24	9.097	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.66	2.13	5.847	A	A
B	6.98	1.40	10.513	B	B
C	7.26	1.45	7.953	A	A
D	17.98	3.60	9.837	A	A
E	1.67	0.33	11.593	B	B

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.30	2.86	7.484	A	A
B	9.89	1.98	14.344	B	B
C	9.75	1.95	10.186	B	B
D	27.31	5.46	14.463	B	B
E	2.24	0.45	14.767	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.38	3.68	9.305	A	A
B	13.56	2.71	19.171	C	B
C	12.57	2.51	12.701	B	B
D	40.86	8.17	20.866	C	C
E	2.86	0.57	18.168	C	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.03	4.41	10.801	B	B
B	17.32	3.46	23.777	C	C
C	15.14	3.03	14.821	B	B
D	57.61	11.52	28.080	D	C
E	3.40	0.68	20.854	C	C

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.10	4.82	11.316	B	B
B	19.88	3.98	25.922	D	C
C	16.61	3.32	15.540	C	B
D	72.62	14.52	33.785	D	C
E	3.71	0.74	21.936	C	C

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.45	4.89	10.453	B	B
B	20.58	4.12	23.626	C	C
C	16.83	3.37	14.186	B	B
D	79.21	15.84	34.482	D	D
E	3.77	0.75	20.509	C	C

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.83	4.17	8.799	A	A
B	16.88	3.38	18.817	C	B
C	14.16	2.83	11.786	B	B
D	65.60	13.12	28.739	D	C
E	3.39	0.68	18.042	C	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.63	2.93	6.658	A	A
B	10.59	2.12	12.730	B	B
C	9.90	1.98	8.864	A	A
D	35.43	7.09	16.589	C	B
E	2.47	0.49	13.857	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.67	1.93	4.880	A	A
B	6.46	1.29	8.552	A	A
C	6.67	1.33	6.624	A	A
D	17.11	3.42	8.239	A	A
E	1.57	0.31	9.770	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.61	1.32	3.788	A	A
B	4.19	0.84	6.314	A	A
C	4.58	0.92	5.166	A	A
D	10.28	2.06	5.450	A	A
E	1.06	0.21	7.516	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.44	1.09	3.374	A	A
B	3.37	0.67	5.522	A	A
C	3.76	0.75	4.605	A	A
D	8.03	1.61	4.604	A	A
E	0.86	0.17	6.682	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.23	1.05	3.355	A	A
B	3.22	0.64	5.484	A	A
C	3.61	0.72	4.579	A	A
D	7.60	1.52	4.552	A	A
E	0.83	0.17	6.646	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.20	1.04	3.354	A	A
B	3.19	0.64	5.481	A	A
C	3.58	0.72	4.576	A	A
D	7.53	1.51	4.548	A	A
E	0.82	0.16	6.644	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A226 Saturday total traffic with development 2025 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 02/07/2015 10:13:54

» Year 2025 Saturday Peak Hour + committed + development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2025 Saturday Peak Hour + committed + development				
Arm A	2.80	6.71	0.74	A	3 % [Arm D]
Arm B	2.36	14.57	0.72	B	
Arm C	1.91	9.91	0.67	A	
Arm D	10.73	23.63	0.94	C	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values 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.

"D1 - Year 2025 Saturday Peak Hour + committed + development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 02/07/2015 10:13:51

File summary

Title	3167A226 Year 2025, Saturday peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/06/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Year 2025 Saturday Peak Hour + committed + development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Year 2025 Saturday Peak Hour + committed + development, AM	Year 2025 Saturday Peak Hour + committed + development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				14.64	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	3	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

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	7.60	10.30	10.90	25.00	75.00	45.00	
B	4.00	6.90	21.50	21.00	75.00	44.00	
C	3.96	8.10	15.70	33.00	75.00	28.00	
D	4.01	11.70	22.90	37.60	75.00	40.00	
E	3.80	7.00	5.10	18.50	75.00	56.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.619	44.042
B		(calculated)	(calculated)	0.482	29.022
C		(calculated)	(calculated)	0.527	32.158
D		(calculated)	(calculated)	0.576	38.509
E		(calculated)	(calculated)	0.409	22.249

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	22.78	100.000
B	ONE HOUR	✓	9.00	100.000
C	ONE HOUR	✓	10.57	100.000
D	ONE HOUR	✓	25.72	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.517	1.067	5.000	15.200	0.000
	B	2.733	0.000	1.933	4.333	0.000
	C	4.983	2.300	0.000	3.283	0.000
	D	14.583	5.700	5.433	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.07	0.05	0.22	0.67	0.00
	B	0.30	0.00	0.21	0.48	0.00
	C	0.47	0.22	0.00	0.31	0.00
	D	0.57	0.22	0.21	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.74	6.71	2.80	A	20.94	1884.54	139.43	4.44	1.55	139.44	4.44
B	0.72	14.57	2.36	B	8.27	744.44	104.96	8.46	1.17	104.96	8.46
C	0.67	9.91	1.91	A	9.71	874.03	92.74	6.37	1.03	92.74	6.37
D	0.94	23.63	10.73	C	23.64	2127.18	371.19	10.47	4.12	371.22	10.47
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.09	17.79	10.03	0.00	37.83	34.14	0.456	0.00	0.82	2.871	A
B	6.81	34.07	6.71	6.78	20.34	0.00	19.22	10.33	0.355	0.00	0.54	4.757	A
C	8.00	40.01	7.89	9.25	17.80	0.00	22.78	14.68	0.351	0.00	0.53	4.005	A
D	19.47	97.36	19.20	17.08	8.62	0.00	33.55	29.56	0.580	0.00	1.34	4.111	A
E	0.00	0.00	0.00	0.00	27.82	0.00	10.86	3.78	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.25	18.03	10.17	0.00	37.75	34.14	0.457	0.82	0.83	2.926	A
B	6.81	34.07	6.81	6.86	20.55	0.00	19.12	10.33	0.357	0.54	0.55	4.875	A
C	8.00	40.01	8.00	9.36	18.01	0.00	22.67	14.68	0.353	0.53	0.54	4.090	A
D	19.47	97.36	19.47	17.27	8.73	0.00	33.48	29.56	0.582	1.34	1.37	4.277	A
E	0.00	0.00	0.00	0.00	28.20	0.00	10.70	3.78	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.25	18.03	10.17	0.00	37.74	34.14	0.457	0.83	0.84	2.927	A
B	6.81	34.07	6.81	6.86	20.56	0.00	19.11	10.33	0.357	0.55	0.55	4.877	A
C	8.00	40.01	8.00	9.36	18.01	0.00	22.67	14.68	0.353	0.54	0.54	4.090	A
D	19.47	97.36	19.47	17.28	8.73	0.00	33.48	29.56	0.582	1.37	1.37	4.281	A
E	0.00	0.00	0.00	0.00	28.20	0.00	10.70	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.41	92.03	18.38	19.20	10.83	0.00	37.34	34.14	0.493	0.84	0.95	3.160	A
B	7.27	36.35	7.25	7.31	21.90	0.00	18.47	10.33	0.394	0.55	0.63	5.341	A
C	8.54	42.68	8.52	9.97	19.18	0.00	22.05	14.68	0.387	0.54	0.62	4.429	A
D	20.78	103.88	20.73	18.40	9.30	0.00	33.15	29.56	0.627	1.37	1.62	4.805	A
E	0.00	0.00	0.00	0.00	30.03	0.00	9.95	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.60	103.00	20.54	21.41	12.07	0.00	36.57	34.14	0.563	0.95	1.26	3.726	A
B	8.14	40.69	8.09	8.15	24.46	0.00	17.23	10.33	0.472	0.63	0.86	6.528	A
C	9.55	47.77	9.51	11.13	21.42	0.00	20.87	14.68	0.458	0.62	0.82	5.263	A
D	23.25	116.26	23.11	20.56	10.38	0.00	32.53	29.56	0.715	1.62	2.35	6.259	A
E	0.00	0.00	0.00	0.00	33.49	0.00	8.54	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.54	112.71	22.47	23.39	13.18	0.00	35.88	34.14	0.628	1.26	1.63	4.445	A
B	8.90	44.52	8.84	8.91	26.74	0.00	16.13	10.33	0.552	0.86	1.17	8.154	A
C	10.45	52.27	10.40	12.16	23.43	0.00	19.81	14.68	0.528	0.82	1.07	6.339	A
D	25.44	127.22	25.22	22.48	11.35	0.00	31.97	29.56	0.796	2.35	3.48	8.559	A
E	0.00	0.00	0.00	0.00	36.57	0.00	7.27	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.12	120.59	24.03	24.97	14.06	0.00	35.34	34.14	0.683	1.63	2.05	5.263	A
B	9.53	47.64	9.45	9.51	28.59	0.00	15.24	10.33	0.625	1.17	1.55	10.196	B
C	11.19	55.93	11.13	12.99	25.06	0.00	18.95	14.68	0.590	1.07	1.37	7.597	A
D	27.22	136.12	26.89	24.04	12.14	0.00	31.52	29.56	0.864	3.48	5.16	11.965	B
E	0.00	0.00	0.00	0.00	39.03	0.00	6.27	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.23	126.15	25.15	26.07	14.67	0.00	34.96	34.14	0.722	2.05	2.45	6.052	A
B	9.97	49.83	9.89	9.93	29.90	0.00	14.61	10.33	0.682	1.55	1.95	12.416	B
C	11.70	58.51	11.64	13.57	26.22	0.00	18.34	14.68	0.638	1.37	1.66	8.854	A
D	28.48	142.39	28.04	25.16	12.70	0.00	31.19	29.56	0.913	5.16	7.35	16.392	C
E	0.00	0.00	0.00	0.00	40.74	0.00	5.57	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.80	129.02	25.75	26.69	15.02	0.00	34.74	34.14	0.743	2.45	2.73	6.603	A
B	10.19	50.97	10.13	10.16	30.61	0.00	14.27	10.33	0.714	1.95	2.26	14.140	B
C	11.97	59.84	11.93	13.89	26.85	0.00	18.01	14.68	0.665	1.66	1.86	9.756	A
D	29.13	145.63	28.69	25.76	13.01	0.00	31.02	29.56	0.939	7.35	9.53	20.900	C
E	0.00	0.00	0.00	0.00	41.70	0.00	5.17	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.80	129.02	25.79	26.83	15.11	0.00	34.69	34.14	0.744	2.73	2.80	6.708	A
B	10.19	50.97	10.17	10.21	30.69	0.00	14.23	10.33	0.716	2.26	2.36	14.568	B
C	11.97	59.84	11.96	13.95	26.91	0.00	17.98	14.68	0.666	1.86	1.91	9.914	A
D	29.13	145.63	28.89	25.82	13.05	0.00	30.99	29.56	0.940	9.53	10.73	23.631	C
E	0.00	0.00	0.00	0.00	41.93	0.00	5.08	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.23	126.15	25.25	26.38	14.88	0.00	34.83	34.14	0.724	2.80	2.72	6.288	A
B	9.97	49.83	9.98	10.04	30.08	0.00	14.53	10.33	0.686	2.36	2.30	13.320	B
C	11.70	58.51	11.71	13.70	26.36	0.00	18.27	14.68	0.641	1.91	1.85	9.200	A
D	28.48	142.39	28.48	25.29	12.78	0.00	31.15	29.56	0.914	10.73	10.73	22.556	C
E	0.00	0.00	0.00	0.00	41.26	0.00	5.35	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.12	120.59	24.20	25.60	14.48	0.00	35.07	34.14	0.688	2.72	2.30	5.572	A
B	9.53	47.64	9.62	9.74	28.94	0.00	15.07	10.33	0.632	2.30	1.85	11.208	B
C	11.19	55.93	11.25	13.25	25.31	0.00	18.82	14.68	0.594	1.85	1.54	8.002	A
D	27.22	136.12	27.80	24.27	12.28	0.00	31.43	29.56	0.868	10.73	7.83	18.114	C
E	0.00	0.00	0.00	0.00	40.09	0.00	5.83	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.54	112.71	22.65	24.02	13.60	0.00	35.62	34.14	0.633	2.30	1.79	4.665	A
B	8.90	44.52	9.01	9.14	27.11	0.00	15.96	10.33	0.558	1.85	1.33	8.763	A
C	10.45	52.27	10.53	12.42	23.69	0.00	19.67	14.68	0.531	1.54	1.18	6.616	A
D	25.44	127.22	26.13	22.72	11.50	0.00	31.89	29.56	0.798	7.83	4.43	11.298	B
E	0.00	0.00	0.00	0.00	37.62	0.00	6.84	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.60	103.00	20.69	21.79	12.31	0.00	36.42	34.14	0.566	1.79	1.34	3.838	A
B	8.14	40.69	8.22	8.29	24.71	0.00	17.11	10.33	0.475	1.33	0.94	6.801	A
C	9.55	47.77	9.61	11.29	21.63	0.00	20.76	14.68	0.460	1.18	0.88	5.413	A
D	23.25	116.26	23.60	20.75	10.50	0.00	32.46	29.56	0.716	4.43	2.69	7.014	A
E	0.00	0.00	0.00	0.00	34.10	0.00	8.29	3.78	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.41	92.03	18.47	19.39	10.94	0.00	37.27	34.14	0.494	1.34	1.00	3.204	A
B	7.27	36.35	7.32	7.38	22.04	0.00	18.40	10.33	0.395	0.94	0.67	5.443	A
C	8.54	42.68	8.58	10.06	19.31	0.00	21.98	14.68	0.388	0.88	0.65	4.492	A
D	20.78	103.88	20.96	18.52	9.37	0.00	33.11	29.56	0.627	2.69	1.75	5.013	A
E	0.00	0.00	0.00	0.00	30.33	0.00	9.83	3.78	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.28	18.09	10.20	0.00	37.72	34.14	0.457	1.00	0.86	2.938	A
B	6.81	34.07	6.84	6.88	20.60	0.00	19.10	10.33	0.357	0.67	0.57	4.904	A
C	8.00	40.01	8.02	9.39	18.05	0.00	22.65	14.68	0.353	0.65	0.56	4.108	A
D	19.47	97.36	19.54	17.31	8.75	0.00	33.47	29.56	0.582	1.75	1.43	4.330	A
E	0.00	0.00	0.00	0.00	28.29	0.00	10.66	3.78	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.25	18.04	10.17	0.00	37.74	34.14	0.457	0.86	0.85	2.930	A
B	6.81	34.07	6.82	6.87	20.56	0.00	19.11	10.33	0.357	0.57	0.56	4.882	A
C	8.00	40.01	8.00	9.37	18.01	0.00	22.67	14.68	0.353	0.56	0.55	4.093	A
D	19.47	97.36	19.48	17.28	8.73	0.00	33.48	29.56	0.582	1.43	1.41	4.288	A
E	0.00	0.00	0.00	0.00	28.21	0.00	10.70	3.78	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.25	86.26	17.25	18.04	10.17	0.00	37.74	34.14	0.457	0.85	0.85	2.927	A
B	6.81	34.07	6.82	6.87	20.56	0.00	19.11	10.33	0.357	0.56	0.56	4.880	A
C	8.00	40.01	8.00	9.36	18.01	0.00	22.67	14.68	0.353	0.55	0.55	4.093	A
D	19.47	97.36	19.47	17.28	8.73	0.00	33.48	29.56	0.582	1.41	1.41	4.287	A
E	0.00	0.00	0.00	0.00	28.21	0.00	10.70	3.78	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.91	0.78	2.871	A	A
B	2.50	0.50	4.757	A	A
C	2.50	0.50	4.005	A	A
D	6.18	1.24	4.111	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.15	0.83	2.926	A	A
B	2.71	0.54	4.875	A	A
C	2.68	0.54	4.090	A	A
D	6.78	1.36	4.277	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.18	0.84	2.927	A	A
B	2.74	0.55	4.877	A	A
C	2.70	0.54	4.090	A	A
D	6.85	1.37	4.281	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.65	0.93	3.160	A	A
B	3.07	0.61	5.341	A	A
C	3.01	0.60	4.429	A	A
D	7.80	1.56	4.805	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.03	1.21	3.726	A	A
B	4.09	0.82	6.528	A	A
C	3.92	0.78	5.263	A	A
D	10.92	2.18	6.259	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.78	1.56	4.445	A	A
B	5.49	1.10	8.154	A	A
C	5.10	1.02	6.339	A	A
D	15.81	3.16	8.559	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.75	1.95	5.263	A	A
B	7.23	1.45	10.196	B	B
C	6.47	1.29	7.597	A	A
D	22.91	4.58	11.965	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.69	2.34	6.052	A	A
B	9.12	1.82	12.416	B	B
C	7.86	1.57	8.854	A	A
D	32.38	6.48	16.392	C	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.18	2.64	6.603	A	A
B	10.74	2.15	14.140	B	B
C	8.95	1.79	9.756	A	A
D	42.90	8.58	20.900	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.85	2.77	6.708	A	A
B	11.59	2.32	14.568	B	B
C	9.45	1.89	9.914	A	A
D	50.91	10.18	23.631	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.76	2.75	6.288	A	A
B	11.62	2.32	13.320	B	B
C	9.38	1.88	9.200	A	A
D	53.66	10.73	22.556	C	C
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.04	2.41	5.572	A	A
B	9.82	1.96	11.208	B	B
C	8.09	1.62	8.002	A	A
D	43.42	8.68	18.114	C	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.40	1.88	4.665	A	A
B	7.15	1.43	8.763	A	A
C	6.23	1.25	6.616	A	A
D	24.93	4.99	11.298	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.00	1.40	3.838	A	A
B	5.00	1.00	6.801	A	A
C	4.62	0.92	5.413	A	A
D	14.76	2.95	7.014	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.18	1.04	3.204	A	A
B	3.53	0.71	5.443	A	A
C	3.39	0.68	4.492	A	A
D	9.37	1.87	5.013	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.39	0.88	2.938	A	A
B	2.93	0.59	4.904	A	A
C	2.86	0.57	4.108	A	A
D	7.46	1.49	4.330	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.26	0.85	2.930	A	A
B	2.82	0.56	4.882	A	A
C	2.77	0.55	4.093	A	A
D	7.10	1.42	4.288	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.24	0.85	2.927	A	A
B	2.80	0.56	4.880	A	A
C	2.75	0.55	4.093	A	A
D	7.04	1.41	4.287	A	A
E	0.00	0.00	0.000	A	A