Appendix H Forecast Junction Model Ouputs

DRAFT

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 02 Rayleigh Road - Hanging Hill Lane Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 15:46:31

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	0.92	7.23	0.48	A	1.34	9.12	0.57	A
Arm B	3.81	19.94	0.80	C	1.58	10.56	0.61	B
Arm C	31.12	224.97	1.03	F	4.53	35.95	0.83	E
	A1 - Option 1							
Arm A	1.14	8.06	0.53	A	1.45	9.66	0.59	A
Arm B	4.21	21.86	0.81	C	1.88	11.84	0.65	B
Arm C	38.63	272.84	1.06	F	7.14	54.93	0.89	F
	A1 - Option 2							
Arm A	1.14	8.06	0.53	A	1.46	9.71	0.59	A
Arm B	4.21	21.86	0.81	C	1.86	11.76	0.65	B
Arm C	37.13	263.43	1.05	F	7.47	57.21	0.90	F
	A1 - Option 3							
Arm A	1.17	8.15	0.54	A	1.37	9.31	0.58	A
Arm B	4.38	22.61	0.82	C	1.91	11.94	0.66	B
Arm C	43.35	304.33	1.07	F	6.61	51.66	0.88	F
	A1 - Option 4							
Arm A	1.14	8.08	0.53	A	1.41	9.50	0.59	A
Arm B	4.49	23.12	0.82	C	2.03	12.47	0.67	B
Arm C	63.75	433.39	1.12	F	7.24	55.67	0.89	F

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 15:46:27

File summary

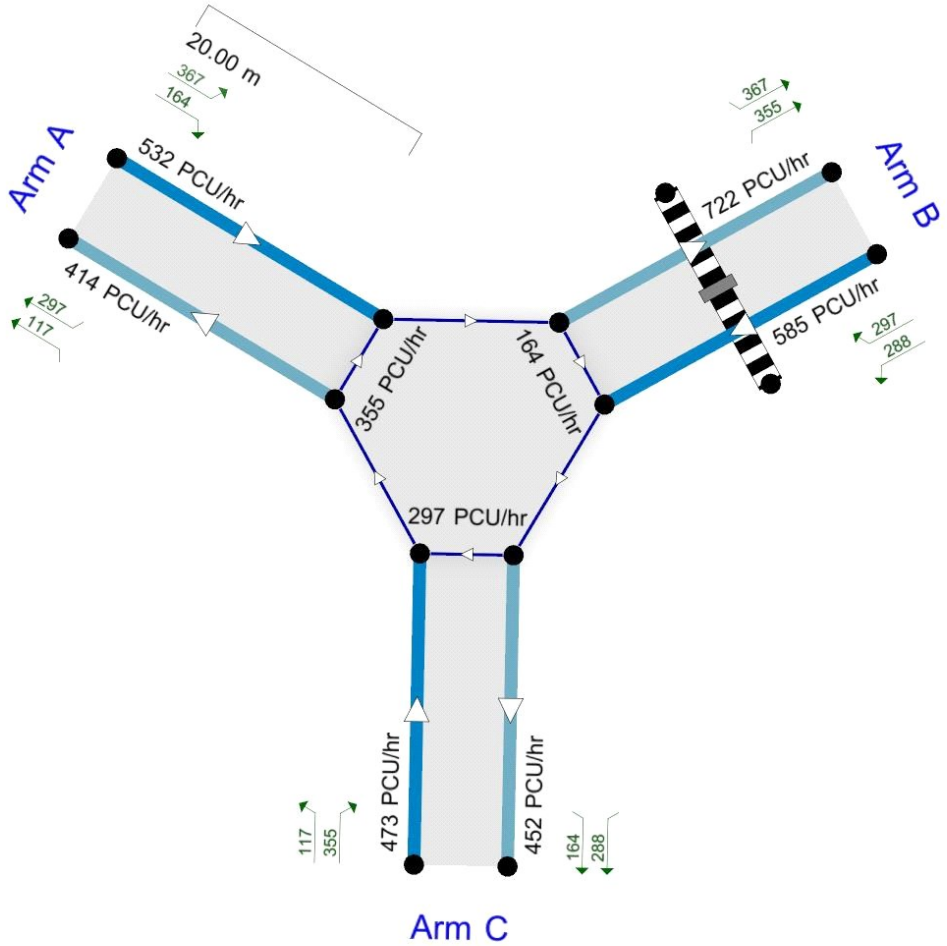
Title	A129 Rayleigh Road - Hanging Hill Lane Jct
Location	Brentwood
Site Number	02
Date	11/07/2014
Version	
Status	For Information
Identifier	
Client	Brentwood
Jobnumber	28085
Enumerator	John Holliday
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	78.55	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	461.00	100.000
B	FLAT	✓	703.00	100.000
C	FLAT	✓	506.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	297.000	164.000
	B	424.000	0.000	279.000
	C	181.000	325.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.64	0.36
	B	0.60	0.00	0.40
	C	0.36	0.64	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.48	7.23	0.92	A	461.00	461.00	53.81	7.00	0.90	53.83	7.01
B	0.80	19.94	3.81	C	703.00	703.00	213.62	18.23	3.56	214.12	18.27
C	1.03	224.97	31.12	F	506.00	506.00	1119.51	132.75	18.66	1178.87	139.79

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	461.00	115.25	457.44	578.86	293.40	0.00	971.33	967.73	0.475	0.00	0.89	6.959	A
B	703.00	175.75	688.84	588.11	162.73	0.00	883.39	779.92	0.796	0.00	3.54	17.426	C
C	506.00	126.50	456.81	436.11	415.46	0.00	493.95	464.70	1.024	0.00	12.30	67.164	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	461.00	115.25	460.92	594.39	306.71	0.00	961.87	967.73	0.479	0.89	0.91	7.183	A
B	703.00	175.75	702.31	603.65	163.97	0.00	882.68	779.92	0.796	3.54	3.71	19.766	C
C	506.00	126.50	477.52	442.70	423.58	0.00	489.63	464.70	1.033	12.30	19.42	136.983	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	461.00	115.25	460.98	596.12	309.33	0.00	960.01	967.73	0.480	0.91	0.92	7.213	A
B	703.00	175.75	702.75	606.31	163.99	0.00	882.67	779.92	0.796	3.71	3.78	19.893	C
C	506.00	126.50	481.60	442.89	423.85	0.00	489.48	464.70	1.034	19.42	25.52	183.401	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	461.00	115.25	460.99	596.91	310.61	0.00	959.10	967.73	0.481	0.92	0.92	7.226	A
B	703.00	175.75	702.87	607.60	164.00	0.00	882.67	779.92	0.796	3.78	3.81	19.938	C
C	506.00	126.50	483.59	442.94	423.92	0.00	489.45	464.70	1.034	25.52	31.12	224.975	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.74	0.85	6.959	A	A
B	45.78	3.05	17.426	C	B
C	116.53	7.77	67.164	F	E

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.56	0.90	7.183	A	A
B	54.68	3.65	19.766	C	B
C	239.88	15.99	136.983	F	F

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.72	0.91	7.213	A	A
B	56.24	3.75	19.893	C	B
C	337.85	22.52	183.401	F	F

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.78	0.92	7.226	A	A
B	56.92	3.79	19.938	C	B
C	425.25	28.35	224.975	F	F

(Default Analysis Set) - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	17.81	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	531.00	100.000
B	FLAT	✓	543.00	100.000
C	FLAT	✓	471.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	369.000	162.000
	B	274.000	0.000	269.000
	C	113.000	358.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.69	0.31
	B	0.50	0.00	0.50
	C	0.24	0.76	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.57	9.12	1.34	A	531.00	531.00	77.78	8.79	1.30	77.84	8.80
B	0.61	10.56	1.58	B	543.00	543.00	92.17	10.18	1.54	92.25	10.19
C	0.83	35.95	4.53	E	471.00	471.00	243.68	31.04	4.06	244.76	31.18

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	525.85	380.11	346.04	0.00	933.93	912.18	0.569	0.00	1.29	8.716	A
B	543.00	135.75	536.83	711.45	160.43	0.00	884.70	817.52	0.614	0.00	1.54	10.178	B
C	471.00	117.75	455.26	426.37	270.89	0.00	570.94	495.51	0.825	0.00	3.94	28.189	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	530.86	386.59	356.87	0.00	926.23	912.18	0.573	1.29	1.32	9.099	A
B	543.00	135.75	542.90	725.77	161.96	0.00	883.83	817.52	0.614	1.54	1.57	10.551	B
C	471.00	117.75	469.51	430.91	273.95	0.00	569.31	495.51	0.827	3.94	4.31	34.940	D

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	530.96	386.84	357.56	0.00	925.74	912.18	0.574	1.32	1.33	9.115	A
B	543.00	135.75	542.97	726.53	161.99	0.00	883.81	817.52	0.614	1.57	1.58	10.558	B
C	471.00	117.75	470.42	430.97	273.98	0.00	569.29	495.51	0.827	4.31	4.45	35.662	E

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	530.98	386.92	357.76	0.00	925.59	912.18	0.574	1.33	1.34	9.121	A
B	543.00	135.75	542.98	726.75	162.00	0.00	883.81	817.52	0.614	1.58	1.58	10.560	B
C	471.00	117.75	470.69	430.99	273.99	0.00	569.29	495.51	0.827	4.45	4.53	35.950	E

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.17	1.21	8.716	A	A
B	21.50	1.43	10.178	B	B
C	48.05	3.20	28.189	D	C

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.67	1.31	9.099	A	A
B	23.38	1.56	10.551	B	B
C	62.35	4.16	34.940	D	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.93	1.33	9.115	A	A
B	23.60	1.57	10.558	B	B
C	65.84	4.39	35.662	E	D

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.02	1.33	9.121	A	A
B	23.69	1.58	10.560	B	B
C	67.44	4.50	35.950	E	D

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	92.16	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	513.00	100.000
B	FLAT	✓	710.00	100.000
C	FLAT	✓	515.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	333.000	180.000
	B	427.000	0.000	283.000
	C	185.000	330.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.65	0.35
	B	0.60	0.00	0.40
	C	0.36	0.64	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.53	8.06	1.14	A	513.00	513.00	66.55	7.78	1.11	66.59	7.79
B	0.81	21.86	4.21	C	710.00	710.00	233.93	19.77	3.90	234.53	19.82
C	1.06	272.84	38.63	F	515.00	515.00	1330.98	155.07	22.18	1422.75	165.76

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	508.60	582.80	294.49	0.00	970.56	968.28	0.529	0.00	1.10	7.721	A
B	710.00	177.50	694.55	624.63	178.45	0.00	874.43	782.49	0.812	0.00	3.86	18.680	C
C	515.00	128.75	459.58	455.30	417.71	0.00	492.75	464.59	1.045	0.00	13.85	72.844	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.89	598.57	306.99	0.00	961.68	968.28	0.533	1.10	1.13	8.018	A
B	710.00	177.50	709.12	639.91	179.96	0.00	873.57	782.49	0.813	3.86	4.08	21.606	C
C	515.00	128.75	479.09	462.61	426.47	0.00	488.09	464.59	1.055	13.85	22.83	155.702	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.97	600.17	309.24	0.00	960.07	968.28	0.534	1.13	1.14	8.050	A
B	710.00	177.50	709.67	642.22	179.99	0.00	873.55	782.49	0.813	4.08	4.16	21.791	C
C	515.00	128.75	482.60	462.86	426.80	0.00	487.91	464.59	1.056	22.83	30.93	216.200	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.98	600.84	310.27	0.00	959.34	968.28	0.535	1.14	1.14	8.063	A
B	710.00	177.50	709.83	643.26	179.99	0.00	873.55	782.49	0.813	4.16	4.21	21.860	C
C	515.00	128.75	484.21	462.93	426.90	0.00	487.86	464.59	1.056	30.93	38.63	272.842	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.65	1.04	7.721	A	A
B	49.31	3.29	18.680	C	B
C	127.96	8.53	72.844	F	E

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.80	1.12	8.018	A	A
B	59.91	3.99	21.606	C	C
C	276.97	18.46	155.702	F	F

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.01	1.13	8.050	A	A
B	61.91	4.13	21.791	C	C
C	403.95	26.93	216.200	F	F

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.10	1.14	8.063	A	A
B	62.80	4.19	21.860	C	C
C	522.10	34.81	272.842	F	F

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	24.28	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	544.00	100.000
B	FLAT	✓	577.00	100.000
C	FLAT	✓	494.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	377.000	167.000
	B	301.000	0.000	276.000
	C	123.000	371.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.69	0.31
	B	0.52	0.00	0.48
	C	0.25	0.75	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.59	9.66	1.45	A	544.00	544.00	83.84	9.25	1.40	83.91	9.25
B	0.65	11.84	1.88	B	577.00	577.00	109.05	11.34	1.82	109.17	11.35
C	0.89	54.93	7.14	F	494.00	494.00	360.42	43.78	6.01	363.17	44.11

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	538.47	414.67	354.35	0.00	928.02	919.02	0.586	0.00	1.38	9.117	A
B	577.00	144.25	569.70	727.51	165.30	0.00	881.92	815.34	0.654	0.00	1.82	11.284	B
C	494.00	123.50	471.82	437.81	297.19	0.00	556.93	488.69	0.887	0.00	5.54	36.128	E

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.81	423.01	368.24	0.00	918.15	919.02	0.593	1.38	1.43	9.608	A
B	577.00	144.25	576.85	745.11	166.94	0.00	880.99	815.34	0.655	1.82	1.86	11.821	B
C	494.00	123.50	490.32	442.87	300.92	0.00	554.95	488.69	0.890	5.54	6.46	50.656	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.95	423.55	369.72	0.00	917.09	919.02	0.593	1.43	1.44	9.642	A
B	577.00	144.25	576.95	746.69	166.98	0.00	880.97	815.34	0.655	1.86	1.87	11.833	B
C	494.00	123.50	492.30	442.96	300.97	0.00	554.92	488.69	0.890	6.46	6.89	53.545	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.98	423.74	370.25	0.00	916.72	919.02	0.593	1.44	1.45	9.656	A
B	577.00	144.25	576.98	747.24	166.99	0.00	880.96	815.34	0.655	1.87	1.88	11.836	B
C	494.00	123.50	493.01	442.98	300.99	0.00	554.91	488.69	0.890	6.89	7.14	54.933	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.42	1.29	9.117	A	A
B	25.15	1.68	11.284	B	B
C	63.45	4.23	36.128	E	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.20	1.41	9.608	A	A
B	27.71	1.85	11.821	B	B
C	91.14	6.08	50.656	F	D

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.55	1.44	9.642	A	A
B	28.03	1.87	11.833	B	B
C	100.48	6.70	53.545	F	D

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.67	1.44	9.656	A	A
B	28.16	1.88	11.836	B	B
C	105.35	7.02	54.933	F	D

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	89.17	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	513.00	100.000
B	FLAT	✓	710.00	100.000
C	FLAT	✓	513.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	333.000	180.000
	B	427.000	0.000	283.000
	C	184.000	329.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.65	0.35
	B	0.60	0.00	0.40
	C	0.36	0.64	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.53	8.06	1.14	A	513.00	513.00	66.54	7.78	1.11	66.58	7.79
B	0.81	21.86	4.21	C	710.00	710.00	233.93	19.77	3.90	234.53	19.82
C	1.05	263.43	37.13	F	513.00	513.00	1288.50	150.70	21.48	1373.28	160.62

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	508.60	582.29	294.28	0.00	970.71	968.10	0.528	0.00	1.10	7.720	A
B	710.00	177.50	694.55	624.42	178.46	0.00	874.43	782.53	0.812	0.00	3.86	18.680	C
C	513.00	128.25	458.85	455.30	417.71	0.00	492.75	464.58	1.041	0.00	13.54	71.721	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.89	598.12	306.91	0.00	961.73	968.10	0.533	1.10	1.13	8.017	A
B	710.00	177.50	709.12	639.84	179.96	0.00	873.57	782.53	0.813	3.86	4.08	21.606	C
C	513.00	128.25	478.56	462.61	426.47	0.00	488.09	464.58	1.051	13.54	22.15	152.025	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.97	599.75	309.24	0.00	960.07	968.10	0.534	1.13	1.14	8.050	A
B	710.00	177.50	709.67	642.22	179.99	0.00	873.55	782.53	0.813	4.08	4.16	21.791	C
C	513.00	128.25	482.19	462.86	426.80	0.00	487.91	464.58	1.051	22.15	29.85	209.754	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	513.00	128.25	512.98	600.45	310.32	0.00	959.31	968.10	0.535	1.14	1.14	8.064	A
B	710.00	177.50	709.83	643.31	179.99	0.00	873.55	782.53	0.813	4.16	4.21	21.860	C
C	513.00	128.25	483.87	462.93	426.90	0.00	487.86	464.58	1.052	29.85	37.13	263.426	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.64	1.04	7.720	A	A
B	49.31	3.29	18.680	C	B
C	125.63	8.38	71.721	F	E

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.79	1.12	8.017	A	A
B	59.91	3.99	21.606	C	C
C	269.47	17.96	152.025	F	F

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.01	1.13	8.050	A	A
B	61.91	4.13	21.791	C	C
C	390.68	26.05	209.754	F	F

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.10	1.14	8.064	A	A
B	62.80	4.19	21.860	C	C
C	502.73	33.52	263.426	F	F

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	25.05	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	544.00	100.000
B	FLAT	✓	575.00	100.000
C	FLAT	✓	497.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	377.000	167.000
	B	301.000	0.000	274.000
	C	123.000	374.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.69	0.31
	B	0.52	0.00	0.48
	C	0.25	0.75	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.59	9.71	1.46	A	544.00	544.00	84.25	9.29	1.40	84.32	9.30
B	0.65	11.76	1.86	B	575.00	575.00	108.01	11.27	1.80	108.12	11.28
C	0.90	57.21	7.47	F	497.00	497.00	374.41	45.20	6.24	377.42	45.56

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	538.45	414.55	356.77	0.00	926.30	918.92	0.587	0.00	1.39	9.156	A
B	575.00	143.75	567.77	729.92	165.30	0.00	881.93	815.35	0.652	0.00	1.81	11.217	B
C	497.00	124.25	474.10	435.85	297.22	0.00	556.92	487.90	0.892	0.00	5.72	36.894	E

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.81	422.94	371.00	0.00	916.19	918.92	0.594	1.39	1.44	9.658	A
B	575.00	143.75	574.86	747.86	166.94	0.00	880.99	815.35	0.653	1.81	1.84	11.746	B
C	497.00	124.25	493.01	440.87	300.92	0.00	554.95	487.90	0.896	5.72	6.72	52.373	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.95	423.51	372.59	0.00	915.06	918.92	0.595	1.44	1.45	9.695	A
B	575.00	143.75	574.95	749.55	166.98	0.00	880.97	815.35	0.653	1.84	1.86	11.756	B
C	497.00	124.25	495.12	440.96	300.97	0.00	554.92	487.90	0.896	6.72	7.19	55.617	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	544.00	136.00	543.98	423.71	373.16	0.00	914.65	918.92	0.595	1.45	1.46	9.710	A
B	575.00	143.75	574.98	750.15	166.99	0.00	880.96	815.35	0.653	1.86	1.86	11.760	B
C	497.00	124.25	495.89	440.98	300.99	0.00	554.91	487.90	0.896	7.19	7.47	57.211	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.49	1.30	9.156	A	A
B	24.92	1.66	11.217	B	B
C	65.10	4.34	36.894	E	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.31	1.42	9.658	A	A
B	27.44	1.83	11.746	B	B
C	94.49	6.30	52.373	F	D

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.66	1.44	9.695	A	A
B	27.76	1.85	11.756	B	B
C	104.70	6.98	55.617	F	E

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.79	1.45	9.710	A	A
B	27.88	1.86	11.760	B	B
C	110.11	7.34	57.211	F	E

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	101.62	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	519.00	100.000
B	FLAT	✓	715.00	100.000
C	FLAT	✓	518.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	338.000	181.000
	B	433.000	0.000	282.000
	C	186.000	332.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.65	0.35
	B	0.61	0.00	0.39
	C	0.36	0.64	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.54	8.15	1.17	A	519.00	519.00	68.10	7.87	1.14	68.15	7.88
B	0.82	22.61	4.38	C	715.00	715.00	242.57	20.36	4.04	243.23	20.41
C	1.07	304.33	43.35	F	518.00	518.00	1462.88	169.45	24.38	1579.22	182.92

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	519.00	129.75	514.49	588.05	294.04	0.00	970.87	969.17	0.535	0.00	1.13	7.814	A
B	715.00	178.75	699.01	629.11	179.43	0.00	873.87	783.49	0.818	0.00	4.00	19.144	C
C	518.00	129.50	458.78	455.12	423.32	0.00	489.77	462.52	1.058	0.00	14.81	76.583	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	519.00	129.75	518.89	603.83	305.97	0.00	962.40	969.17	0.539	1.13	1.16	8.114	A
B	715.00	178.75	714.04	643.90	180.96	0.00	873.00	783.49	0.819	4.00	4.24	22.317	C
C	518.00	129.50	477.39	462.58	432.42	0.00	484.92	462.52	1.068	14.81	24.96	167.936	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	519.00	129.75	518.97	605.33	307.98	0.00	960.97	969.17	0.540	1.16	1.16	8.143	A
B	715.00	178.75	714.64	645.96	180.99	0.00	872.98	783.49	0.819	4.24	4.33	22.530	C
C	518.00	129.50	480.52	462.85	432.78	0.00	484.73	462.52	1.069	24.96	34.33	237.743	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	519.00	129.75	518.98	605.92	308.86	0.00	960.35	969.17	0.540	1.16	1.17	8.154	A
B	715.00	178.75	714.81	646.85	180.99	0.00	872.98	783.49	0.819	4.33	4.38	22.611	C
C	518.00	129.50	481.89	462.92	432.89	0.00	484.67	462.52	1.069	34.33	43.35	304.334	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.01	1.07	7.814	A	A
B	50.80	3.39	19.144	C	B
C	134.80	8.99	76.583	F	E

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.19	1.15	8.114	A	A
B	62.13	4.14	22.317	C	C
C	299.89	19.99	167.936	F	F

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.41	1.16	8.143	A	A
B	64.33	4.29	22.530	C	C
C	445.26	29.68	237.743	F	F

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.49	1.17	8.154	A	A
B	65.31	4.35	22.611	C	C
C	582.93	38.86	304.334	F	F

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	23.10	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	535.00	100.000
B	FLAT	✓	582.00	100.000
C	FLAT	✓	486.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	372.000	163.000
	B	307.000	0.000	275.000
	C	122.000	364.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.70	0.30
	B	0.53	0.00	0.47
	C	0.25	0.75	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.58	9.31	1.37	A	535.00	535.00	79.70	8.94	1.33	79.76	8.95
B	0.66	11.94	1.91	B	582.00	582.00	110.92	11.43	1.85	111.04	11.45
C	0.88	51.66	6.61	F	486.00	486.00	337.64	41.68	5.63	340.02	41.98

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	535.00	133.75	529.74	419.82	348.30	0.00	932.32	921.20	0.574	0.00	1.32	8.832	A
B	582.00	145.50	574.58	716.64	161.40	0.00	884.15	816.17	0.658	0.00	1.86	11.374	B
C	486.00	121.50	465.04	432.89	303.08	0.00	553.80	485.93	0.878	0.00	5.24	34.996	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	535.00	133.75	534.83	428.11	361.59	0.00	922.87	921.20	0.580	1.32	1.36	9.270	A
B	582.00	145.50	581.85	733.47	162.95	0.00	883.27	816.17	0.659	1.86	1.89	11.927	B
C	486.00	121.50	482.78	437.88	306.92	0.00	551.75	485.93	0.881	5.24	6.05	48.111	E

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	535.00	133.75	534.96	428.61	362.92	0.00	921.93	921.20	0.580	1.36	1.37	9.300	A
B	582.00	145.50	581.95	734.89	162.99	0.00	883.24	816.17	0.659	1.89	1.91	11.940	B
C	486.00	121.50	484.56	437.96	306.97	0.00	551.72	485.93	0.881	6.05	6.41	50.502	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	535.00	133.75	534.98	428.78	363.38	0.00	921.60	921.20	0.581	1.37	1.37	9.309	A
B	582.00	145.50	581.97	735.37	162.99	0.00	883.24	816.17	0.659	1.91	1.91	11.942	B
C	486.00	121.50	485.17	437.98	306.99	0.00	551.72	485.93	0.881	6.41	6.61	51.656	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.53	1.24	8.832	A	A
B	25.55	1.70	11.374	B	B
C	60.59	4.04	34.996	D	C

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.15	1.34	9.270	A	A
B	28.19	1.88	11.927	B	B
C	85.62	5.71	48.111	E	D

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.46	1.36	9.300	A	A
B	28.52	1.90	11.940	B	B
C	93.67	6.24	50.502	F	D

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.56	1.37	9.309	A	A
B	28.65	1.91	11.942	B	B
C	97.77	6.52	51.656	F	D

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	144.34	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	511.00	100.000
B	FLAT	✓	718.00	100.000
C	FLAT	✓	542.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	329.000	182.000
	B	433.000	0.000	285.000
	C	190.000	352.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.64	0.36
	B	0.60	0.00	0.40
	C	0.35	0.65	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.53	8.08	1.14	A	511.00	511.00	66.60	7.82	1.11	66.64	7.82
B	0.82	23.12	4.49	C	718.00	718.00	248.32	20.75	4.14	249.01	20.81
C	1.12	433.39	63.75	F	542.00	542.00	2041.69	226.02	34.03	2293.23	253.86

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	511.00	127.75	506.58	586.33	302.33	0.00	964.99	965.39	0.530	0.00	1.11	7.780	A
B	718.00	179.50	701.65	628.48	180.43	0.00	873.30	780.16	0.822	0.00	4.09	19.453	C
C	542.00	135.50	465.52	458.94	423.14	0.00	489.86	464.65	1.106	0.00	19.12	91.523	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	511.00	127.75	510.90	601.01	312.39	0.00	957.83	965.39	0.534	1.11	1.13	8.051	A
B	718.00	179.50	716.98	641.33	181.97	0.00	872.43	780.16	0.823	4.09	4.34	22.796	C
C	542.00	135.50	481.02	466.56	432.38	0.00	484.94	464.65	1.118	19.12	34.37	217.685	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	511.00	127.75	510.97	602.05	313.61	0.00	956.97	965.39	0.534	1.13	1.14	8.070	A
B	718.00	179.50	717.62	642.59	181.99	0.00	872.41	780.16	0.823	4.34	4.44	23.031	C
C	542.00	135.50	482.89	466.84	432.77	0.00	484.73	464.65	1.118	34.37	49.14	326.084	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	511.00	127.75	510.99	602.40	314.06	0.00	956.65	965.39	0.534	1.14	1.14	8.077	A
B	718.00	179.50	717.80	643.06	182.00	0.00	872.41	780.16	0.823	4.44	4.49	23.118	C
C	542.00	135.50	483.59	466.92	432.88	0.00	484.67	464.65	1.118	49.14	63.75	433.391	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.70	1.05	7.780	A	A
B	51.77	3.45	19.453	C	B
C	165.89	11.06	91.523	F	F

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.82	1.12	8.051	A	A
B	63.61	4.24	22.796	C	C
C	402.27	26.82	217.685	F	F

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.01	1.13	8.070	A	A
B	65.95	4.40	23.031	C	C
C	626.68	41.78	326.084	F	F

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.07	1.14	8.077	A	A
B	66.99	4.47	23.118	C	C
C	846.85	56.46	433.391	F	F

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	24.65	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Rayleigh Road (W)	
B	B	Rayleigh Road (E)	
C	C	Hanging Hill Lane	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	4.50	4.50	5.30	9.31	16.34	16.50	0.00	
B	3.40	3.40	5.60	4.83	10.41	7.70	0.00	
C	3.20	3.20	4.50	1.51	10.78	7.70	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	3.00	4.20	✓	Distance			4.40	3.14	4.10	2.93

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.711	1179.833
B		(calculated)	(calculated)	0.570	976.145
C		(calculated)	(calculated)	0.533	715.200

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	537.00	100.000
B	FLAT	✓	593.00	100.000
C	FLAT	✓	495.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	371.000	166.000
	B	301.000	0.000	292.000
	C	123.000	372.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.69	0.31
	B	0.51	0.00	0.49
	C	0.25	0.75	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.59	9.50	1.41	A	537.00	537.00	81.46	9.10	1.36	81.52	9.11
B	0.67	12.47	2.03	B	593.00	593.00	117.64	11.90	1.96	117.79	11.92
C	0.89	55.67	7.24	F	495.00	495.00	364.85	44.22	6.08	367.69	44.57

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	537.00	134.25	531.63	414.44	355.17	0.00	927.43	915.51	0.579	0.00	1.34	8.978	A
B	593.00	148.25	585.13	722.46	164.34	0.00	882.47	814.83	0.672	0.00	1.97	11.816	B
C	495.00	123.75	472.61	452.46	297.00	0.00	557.03	494.94	0.889	0.00	5.60	36.352	E

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	537.00	134.25	536.82	422.97	369.15	0.00	917.50	915.51	0.585	1.34	1.39	9.449	A
B	593.00	148.25	592.83	740.03	165.94	0.00	881.56	814.83	0.673	1.97	2.01	12.448	B
C	495.00	123.75	491.21	457.86	300.91	0.00	554.95	494.94	0.892	5.60	6.55	51.200	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	537.00	134.25	536.95	423.53	370.68	0.00	916.42	915.51	0.586	1.39	1.40	9.484	A
B	593.00	148.25	592.94	741.64	165.99	0.00	881.53	814.83	0.673	2.01	2.03	12.463	B
C	495.00	123.75	493.24	457.96	300.97	0.00	554.92	494.94	0.892	6.55	6.99	54.212	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	537.00	134.25	536.98	423.73	371.22	0.00	916.03	915.51	0.586	1.40	1.41	9.495	A
B	593.00	148.25	592.97	742.21	165.99	0.00	881.53	814.83	0.673	2.03	2.03	12.468	B
C	495.00	123.75	493.97	457.98	300.99	0.00	554.91	494.94	0.892	6.99	7.24	55.669	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.89	1.26	8.978	A	A
B	26.98	1.80	11.816	B	B
C	63.95	4.26	36.352	E	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.60	1.37	9.449	A	A
B	29.92	1.99	12.448	B	B
C	92.19	6.15	51.200	F	D

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.92	1.39	9.484	A	A
B	30.30	2.02	12.463	B	B
C	101.83	6.79	54.212	F	D

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.04	1.40	9.495	A	A
B	30.45	2.03	12.468	B	B
C	106.88	7.13	55.669	F	E

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 03 A128 Ongar Road - Doddinghurst Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 15:51:51

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	80.33	341.53	1.09	F	9.48	59.54	0.92	F
Arm B	70.77	735.54	1.23	F	1.25	20.06	0.56	C
Arm C	1.80	8.60	0.64	A	82.25	232.84	1.06	F
	A1 - Option 1							
Arm A	102.23	431.70	1.12	F	16.09	97.71	0.97	F
Arm B	125.59	1271.49	1.40	F	1.52	22.84	0.61	C
Arm C	2.05	9.47	0.67	A	150.24	413.29	1.12	F
	A1 - Option 2							
Arm A	102.23	431.70	1.12	F	16.96	102.25	0.97	F
Arm B	125.59	1271.49	1.40	F	1.53	23.02	0.61	C
Arm C	2.04	9.44	0.67	A	152.14	418.35	1.12	F
	A1 - Option 3							
Arm A	151.98	644.12	1.19	F	47.21	272.58	1.06	F
Arm B	369.67	3583.65	2.14	F	2.65	32.01	0.73	D
Arm C	2.45	10.99	0.71	B	417.43	1146.69	1.36	F
	A1 - Option 4							
Arm A	131.23	550.08	1.16	F	16.59	100.25	0.97	F
Arm B	133.57	1349.65	1.42	F	1.59	23.57	0.62	C
Arm C	2.11	9.65	0.68	A	183.12	500.54	1.15	F

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 15:51:47

File summary

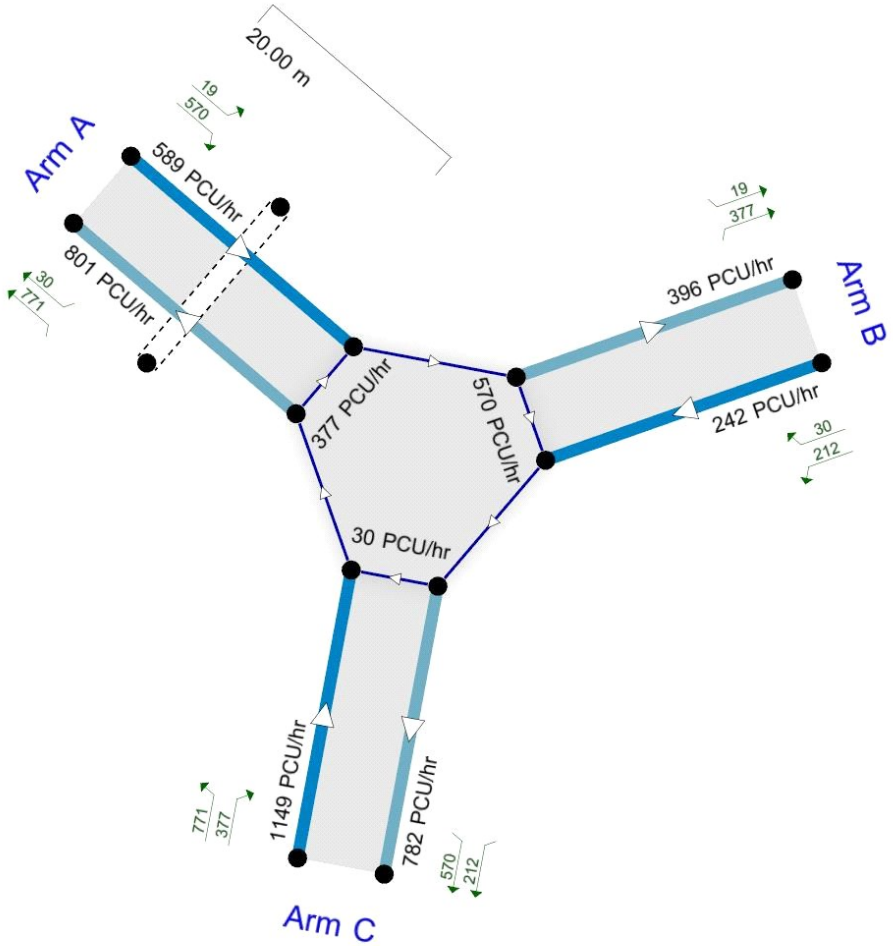
Title	Ongar Road - Doddinghurst Road
Location	Brentwood
Site Number	03
Date	14/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	Sean Blain
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	290.00	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	845.00	100.000
B	FLAT	✓	381.00	100.000
C	FLAT	✓	758.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	9.000	836.000
	B	29.000	0.000	352.000
	C	602.000	156.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.08	0.00	0.92
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.09	341.53	80.33	F	845.00	845.00	2600.46	184.65	43.34	2850.56	202.41
B	1.23	735.54	70.77	F	381.00	381.00	2150.66	338.69	35.84	2633.91	414.79
C	0.64	8.60	1.80	A	758.00	758.00	105.23	8.33	1.75	105.32	8.34

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	845.00	211.25	745.03	619.90	154.55	0.00	774.84	726.27	1.091	0.00	24.99	73.754	F
B	381.00	95.25	308.76	162.48	737.09	0.00	325.85	335.99	1.169	0.00	18.06	127.328	F
C	758.00	189.50	750.94	1022.35	23.50	0.00	1176.62	1175.10	0.644	0.00	1.76	8.325	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	845.00	211.25	769.26	625.59	155.98	0.00	774.04	726.27	1.092	24.99	43.93	174.164	F
B	381.00	95.25	310.91	164.17	761.07	0.00	312.76	335.99	1.218	18.06	35.58	333.498	F
C	758.00	189.50	757.91	1048.32	23.67	0.00	1176.50	1175.10	0.644	1.76	1.79	8.595	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	845.00	211.25	771.73	625.62	155.99	0.00	774.03	726.27	1.092	43.93	62.24	258.315	F
B	381.00	95.25	310.71	164.21	763.51	0.00	311.42	335.99	1.223	35.58	53.16	533.471	F
C	758.00	189.50	757.97	1050.57	23.65	0.00	1176.52	1175.10	0.644	1.79	1.80	8.598	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	845.00	211.25	772.66	625.62	156.00	0.00	774.03	726.27	1.092	62.24	80.33	341.530	F
B	381.00	95.25	310.54	164.23	764.43	0.00	310.92	335.99	1.225	53.16	70.77	735.542	F
C	758.00	189.50	757.98	1051.33	23.64	0.00	1176.53	1175.10	0.644	1.80	1.80	8.599	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	216.07	14.40	73.754	F	E
B	152.50	10.17	127.328	F	F
C	24.73	1.65	8.325	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	518.21	34.55	174.164	F	F
B	402.97	26.86	333.498	F	F
C	26.67	1.78	8.595	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	796.70	53.11	258.315	F	F
B	665.69	44.38	533.471	F	F
C	26.88	1.79	8.598	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1069.48	71.30	341.530	F	F
B	929.50	61.97	735.542	F	F
C	26.96	1.80	8.599	A	A

(Default Analysis Set) - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	158.78	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	609.00	100.000
B	FLAT	✓	228.00	100.000
C	FLAT	✓	1243.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	590.000
	B	26.000	0.000	202.000
	C	864.000	379.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.11	0.00	0.89
	C	0.70	0.30	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.92	59.54	9.48	F	609.00	609.00	458.58	45.18	7.64	462.66	45.58
B	0.56	20.06	1.25	C	228.00	228.00	70.40	18.53	1.17	70.52	18.56
C	1.06	232.84	82.25	F	1243.00	1243.00	2730.97	131.82	45.52	2903.71	140.16

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	582.07	813.50	345.67	0.00	668.51	663.66	0.911	0.00	6.73	34.855	D
B	228.00	57.00	223.46	363.83	563.91	0.00	420.46	377.28	0.542	0.00	1.13	17.895	C
C	1243.00	310.75	1133.68	761.89	25.48	0.00	1175.17	1162.26	1.058	0.00	27.33	54.387	F

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	602.98	836.91	355.73	0.00	662.91	663.66	0.919	6.73	8.24	52.209	F
B	228.00	57.00	227.68	374.54	584.17	0.00	409.39	377.28	0.557	1.13	1.22	19.749	C
C	1243.00	310.75	1166.67	785.88	25.96	0.00	1174.81	1162.26	1.058	27.33	46.41	124.045	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	605.92	839.62	356.91	0.00	662.25	663.66	0.920	8.24	9.01	56.972	F
B	228.00	57.00	227.91	375.81	587.02	0.00	407.83	377.28	0.559	1.22	1.24	19.977	C
C	1243.00	310.75	1170.54	788.94	25.99	0.00	1174.79	1162.26	1.058	46.41	64.53	179.111	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	607.09	840.72	357.39	0.00	661.99	663.66	0.920	9.01	9.48	59.544	F
B	228.00	57.00	227.96	376.33	588.15	0.00	407.21	377.28	0.560	1.24	1.25	20.061	C
C	1243.00	310.75	1172.11	790.11	25.99	0.00	1174.79	1162.26	1.058	64.53	82.25	232.844	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	75.77	5.05	34.855	D	C
B	15.44	1.03	17.895	C	B
C	242.08	16.14	54.387	F	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	113.96	7.60	52.209	F	D
B	17.84	1.19	19.749	C	B
C	555.03	37.00	124.045	F	F

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	129.90	8.66	56.972	F	E
B	18.44	1.23	19.977	C	B
C	832.72	55.51	179.111	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	138.95	9.26	59.544	F	E
B	18.68	1.25	20.061	C	C
C	1101.13	73.41	232.844	F	F

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	450.10	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	864.00	100.000
B	FLAT	✓	441.00	100.000
C	FLAT	✓	786.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	12.000	852.000
	B	53.000	0.000	388.000
	C	621.000	165.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.12	0.00	0.88
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.12	431.70	102.23	F	864.00	864.00	3229.42	224.27	53.82	3637.11	252.58
B	1.40	1271.49	125.59	F	441.00	441.00	3766.34	512.43	62.77	5270.27	717.04
C	0.67	9.47	2.05	A	786.00	786.00	119.61	9.13	1.99	119.71	9.14

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	744.93	652.76	163.32	0.00	769.96	724.87	1.122	0.00	29.77	84.540	F
B	441.00	110.25	317.00	173.66	734.59	0.00	327.22	338.03	1.348	0.00	31.00	194.880	F
C	786.00	196.50	777.98	1013.49	38.10	0.00	1165.88	1164.02	0.674	0.00	2.01	9.104	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	766.11	658.80	164.97	0.00	769.04	724.87	1.123	29.77	54.24	209.642	F
B	441.00	110.25	315.33	175.61	755.47	0.00	315.82	338.03	1.396	31.00	62.42	553.019	F
C	786.00	196.50	785.88	1032.90	37.90	0.00	1166.03	1164.02	0.674	2.01	2.04	9.461	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	767.75	658.80	164.99	0.00	769.03	724.87	1.124	54.24	78.30	320.736	F
B	441.00	110.25	314.76	175.65	757.08	0.00	314.93	338.03	1.400	62.42	93.98	911.159	F
C	786.00	196.50	785.96	1034.02	37.83	0.00	1166.08	1164.02	0.674	2.04	2.05	9.465	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	768.30	658.79	165.00	0.00	769.02	724.87	1.124	78.30	102.23	431.698	F
B	441.00	110.25	314.55	175.67	757.63	0.00	314.64	338.03	1.402	93.98	125.59	1271.491	F
C	786.00	196.50	785.98	1034.38	37.80	0.00	1166.10	1164.02	0.674	2.05	2.05	9.467	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	250.01	16.67	84.540	F	F
B	245.71	16.38	194.880	F	F
C	27.88	1.86	9.104	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	630.97	42.06	209.642	F	F
B	700.84	46.72	553.019	F	F
C	30.36	2.02	9.461	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	994.34	66.29	320.736	F	F
B	1173.02	78.20	911.159	F	F
C	30.63	2.04	9.465	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1354.11	90.27	431.698	F	F
B	1646.78	109.79	1271.491	F	F
C	30.74	2.05	9.467	A	A

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	279.24	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	625.00	100.000
B	FLAT	✓	244.00	100.000
C	FLAT	✓	1313.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	20.000	605.000
	B	32.000	0.000	212.000
	C	880.000	433.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.13	0.00	0.87
	C	0.67	0.33	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.97	97.71	16.09	F	625.00	625.00	697.89	67.00	11.63	709.91	68.15
B	0.61	22.84	1.52	C	244.00	244.00	83.95	20.64	1.40	84.12	20.69
C	1.12	413.29	150.24	F	1313.00	1313.00	4688.62	214.26	78.14	5267.20	240.69

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	587.78	797.92	377.21	0.00	650.96	648.60	0.960	0.00	9.30	44.065	E
B	244.00	61.00	238.67	396.02	568.97	0.00	417.69	385.53	0.584	0.00	1.33	19.580	C
C	1313.00	328.25	1143.84	776.34	31.30	0.00	1170.88	1156.71	1.121	0.00	42.29	75.921	F

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	612.15	814.75	385.18	0.00	646.53	648.60	0.967	9.30	12.52	75.558	F
B	244.00	61.00	243.51	404.77	592.56	0.00	404.80	385.53	0.603	1.33	1.45	22.207	C
C	1313.00	328.25	1167.99	804.14	31.94	0.00	1170.42	1156.71	1.122	42.29	78.54	195.072	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	616.74	815.73	385.64	0.00	646.27	648.60	0.967	12.52	14.58	88.730	F
B	244.00	61.00	243.84	405.37	597.01	0.00	402.38	385.53	0.606	1.45	1.49	22.643	C
C	1313.00	328.25	1169.38	808.87	31.98	0.00	1170.38	1156.71	1.122	78.54	114.45	304.054	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	618.95	816.03	385.79	0.00	646.19	648.60	0.967	14.58	16.09	97.706	F
B	244.00	61.00	243.92	405.59	599.14	0.00	401.21	385.53	0.608	1.49	1.52	22.840	C
C	1313.00	328.25	1169.83	811.07	31.99	0.00	1170.38	1156.71	1.122	114.45	150.24	413.294	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	97.21	6.48	44.065	E	D
B	17.94	1.20	19.580	C	B
C	348.69	23.25	75.921	F	E

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	165.93	11.06	75.558	F	E
B	21.23	1.42	22.207	C	C
C	907.07	60.47	195.072	F	F

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	204.16	13.61	88.730	F	F
B	22.18	1.48	22.643	C	C
C	1447.64	96.51	304.054	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	230.58	15.37	97.706	F	F
B	22.60	1.51	22.840	C	C
C	1985.23	132.35	413.294	F	F

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	450.30	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	864.00	100.000
B	FLAT	✓	441.00	100.000
C	FLAT	✓	785.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	12.000	852.000
	B	53.000	0.000	388.000
	C	620.000	165.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.12	0.00	0.88
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.12	431.70	102.23	F	864.00	864.00	3229.44	224.27	53.82	3637.14	252.58
B	1.40	1271.49	125.59	F	441.00	441.00	3766.33	512.43	62.77	5270.25	717.04
C	0.67	9.44	2.04	A	785.00	785.00	119.16	9.11	1.99	119.27	9.12

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	744.93	651.78	163.32	0.00	769.96	724.70	1.122	0.00	29.77	84.541	F
B	441.00	110.25	317.00	173.67	734.58	0.00	327.22	338.12	1.348	0.00	31.00	194.878	F
C	785.00	196.25	777.01	1013.49	38.10	0.00	1165.88	1164.01	0.673	0.00	2.00	9.082	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	766.11	657.80	164.97	0.00	769.04	724.70	1.123	29.77	54.24	209.645	F
B	441.00	110.25	315.33	175.62	755.47	0.00	315.82	338.12	1.396	31.00	62.42	553.016	F
C	785.00	196.25	784.88	1032.90	37.90	0.00	1166.03	1164.01	0.673	2.00	2.03	9.436	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	767.75	657.80	164.99	0.00	769.03	724.70	1.124	54.24	78.30	320.738	F
B	441.00	110.25	314.76	175.65	757.08	0.00	314.93	338.12	1.400	62.42	93.98	911.156	F
C	785.00	196.25	784.96	1034.02	37.83	0.00	1166.08	1164.01	0.673	2.03	2.04	9.440	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	768.30	657.79	165.00	0.00	769.02	724.70	1.124	78.30	102.23	431.700	F
B	441.00	110.25	314.55	175.67	757.63	0.00	314.64	338.12	1.402	93.98	125.59	1271.491	F
C	785.00	196.25	784.98	1034.38	37.80	0.00	1166.10	1164.01	0.673	2.04	2.04	9.442	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	250.01	16.67	84.541	F	F
B	245.71	16.38	194.878	F	F
C	27.78	1.85	9.082	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	630.97	42.06	209.645	F	F
B	700.84	46.72	553.016	F	F
C	30.25	2.02	9.436	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	994.35	66.29	320.738	F	F
B	1173.01	78.20	911.156	F	F
C	30.51	2.03	9.440	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1354.11	90.27	431.700	F	F
B	1646.77	109.79	1271.491	F	F
C	30.62	2.04	9.442	A	A

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	283.47	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	628.00	100.000
B	FLAT	✓	244.00	100.000
C	FLAT	✓	1315.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	20.000	608.000
	B	32.000	0.000	212.000
	C	882.000	433.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.13	0.00	0.87
	C	0.67	0.33	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.97	102.25	16.96	F	628.00	628.00	726.68	69.43	12.11	740.03	70.70
B	0.61	23.02	1.53	C	244.00	244.00	84.51	20.78	1.41	84.68	20.82
C	1.12	418.35	152.14	F	1315.00	1315.00	4744.03	216.46	79.07	5337.36	243.53

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	628.00	157.00	589.68	798.68	376.73	0.00	651.23	648.91	0.964	0.00	9.58	44.892	E
B	244.00	61.00	238.64	395.51	570.90	0.00	416.64	385.31	0.586	0.00	1.34	19.687	C
C	1315.00	328.75	1144.11	778.24	31.30	0.00	1170.89	1156.73	1.123	0.00	42.72	76.540	F

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	628.00	157.00	614.26	815.38	384.62	0.00	646.84	648.91	0.971	9.58	13.02	77.924	F
B	244.00	61.00	243.50	404.18	594.70	0.00	403.64	385.31	0.605	1.34	1.46	22.365	C
C	1315.00	328.75	1168.06	806.27	31.93	0.00	1170.42	1156.73	1.124	42.72	79.46	197.097	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	628.00	157.00	618.96	816.33	385.06	0.00	646.59	648.91	0.971	13.02	15.27	92.253	F
B	244.00	61.00	243.84	404.78	599.25	0.00	401.15	385.31	0.608	1.46	1.51	22.817	C
C	1315.00	328.75	1169.42	811.11	31.98	0.00	1170.39	1156.73	1.124	79.46	115.85	307.586	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	628.00	157.00	621.26	816.63	385.20	0.00	646.51	648.91	0.971	15.27	16.96	102.245	F
B	244.00	61.00	243.91	404.99	601.47	0.00	399.94	385.31	0.610	1.51	1.53	23.024	C
C	1315.00	328.75	1169.85	813.40	31.99	0.00	1170.38	1156.73	1.124	115.85	152.14	418.348	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	99.45	6.63	44.892	E	D
B	18.03	1.20	19.687	C	B
C	351.78	23.45	76.540	F	E

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	171.79	11.45	77.924	F	E
B	21.36	1.42	22.365	C	C
C	917.15	61.14	197.097	F	F

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	213.14	14.21	92.253	F	F
B	22.34	1.49	22.817	C	C
C	1465.05	97.67	307.586	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	242.31	16.15	102.245	F	F
B	22.77	1.52	23.024	C	C
C	2010.05	134.00	418.348	F	F

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	1281.99	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	903.00	100.000
B	FLAT	✓	697.00	100.000
C	FLAT	✓	809.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	22.000	881.000
	B	167.000	0.000	530.000
	C	620.000	189.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.24	0.00	0.76
	C	0.77	0.23	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.19	644.12	151.98	F	903.00	903.00	4677.03	310.77	77.95	5594.05	371.70
B	2.14	3583.65	369.67	F	697.00	697.00	11066.36	952.63	184.44	23646.60	2035.58
C	0.71	10.99	2.45	B	809.00	809.00	141.79	10.52	2.36	141.95	10.53

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	903.00	225.75	738.90	692.03	186.78	0.00	756.91	713.62	1.193	0.00	41.03	110.939	F
B	697.00	174.25	331.08	204.78	720.89	0.00	334.70	348.17	2.082	0.00	91.48	514.064	F
C	809.00	202.25	799.48	972.65	79.33	0.00	1135.53	1132.52	0.712	0.00	2.38	10.438	B

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	903.00	225.75	754.52	698.06	188.96	0.00	755.69	713.62	1.195	41.03	78.15	295.188	F
B	697.00	174.25	326.34	207.34	736.13	0.00	326.38	348.17	2.136	91.48	184.14	1534.295	F
C	809.00	202.25	808.83	984.29	78.19	0.00	1136.37	1132.52	0.712	2.38	2.42	10.974	B

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	903.00	225.75	755.22	698.06	188.99	0.00	755.68	713.62	1.195	78.15	115.09	469.349	F
B	697.00	174.25	325.99	207.39	736.82	0.00	326.00	348.17	2.138	184.14	276.90	2559.136	F
C	809.00	202.25	808.94	984.71	78.11	0.00	1136.43	1132.52	0.712	2.42	2.44	10.983	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	903.00	225.75	755.43	698.06	188.99	0.00	755.67	713.62	1.195	115.09	151.98	644.115	F
B	697.00	174.25	325.88	207.40	737.03	0.00	325.89	348.17	2.139	276.90	369.67	3583.646	F
C	809.00	202.25	808.97	984.83	78.08	0.00	1136.45	1132.52	0.712	2.44	2.45	10.986	B

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	330.32	22.02	110.939	F	F
B	692.09	46.14	514.064	F	F
C	32.62	2.17	10.438	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	894.22	59.61	295.188	F	F
B	2067.18	137.81	1534.295	F	F
C	36.08	2.41	10.974	B	B

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1449.39	96.63	469.349	F	F
B	3457.80	230.52	2559.136	F	F
C	36.46	2.43	10.983	B	B

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2003.10	133.54	644.115	F	F
B	4849.28	323.29	3583.646	F	F
C	36.63	2.44	10.986	B	B

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	790.84	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	625.00	100.000
B	FLAT	✓	308.00	100.000
C	FLAT	✓	1567.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	22.000	603.000
	B	57.000	0.000	251.000
	C	904.000	663.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.19	0.00	0.81
	C	0.58	0.42	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.06	272.58	47.21	F	625.00	625.00	1610.07	154.57	26.83	1723.45	165.45
B	0.73	32.01	2.65	D	308.00	308.00	142.19	27.70	2.37	142.69	27.80
C	1.36	1146.69	417.43	F	1567.00	1567.00	12593.86	482.22	209.90	17131.62	655.96

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	558.38	714.42	483.36	0.00	591.90	593.12	1.056	0.00	16.66	70.241	F
B	308.00	77.00	299.14	503.01	538.72	0.00	434.21	415.91	0.709	0.00	2.21	25.249	D
C	1567.00	391.75	1142.41	782.50	55.36	0.00	1153.17	1137.27	1.359	0.00	106.15	172.781	F

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	581.38	721.34	487.39	0.00	589.66	593.12	1.060	16.66	27.56	152.745	F
B	308.00	77.00	306.87	507.85	560.91	0.00	422.09	415.91	0.730	2.21	2.50	30.719	D
C	1567.00	391.75	1151.94	810.99	56.79	0.00	1152.12	1137.27	1.360	106.15	209.91	499.673	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	584.93	721.49	487.40	0.00	589.66	593.12	1.060	27.56	37.58	214.173	F
B	308.00	77.00	307.60	507.98	564.34	0.00	420.22	415.91	0.733	2.50	2.60	31.639	D
C	1567.00	391.75	1151.96	815.01	56.93	0.00	1152.02	1137.27	1.360	209.91	313.67	822.904	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	625.00	156.25	586.49	721.53	487.40	0.00	589.66	593.12	1.060	37.58	47.21	272.585	F
B	308.00	77.00	307.79	508.04	565.84	0.00	419.40	415.91	0.734	2.60	2.65	32.012	D
C	1567.00	391.75	1151.96	816.67	56.96	0.00	1152.00	1137.27	1.360	313.67	417.43	1146.693	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	151.23	10.08	70.241	F	E
B	28.51	1.90	25.249	D	C
C	813.13	54.21	172.781	F	F

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	333.38	22.23	152.745	F	F
B	35.95	2.40	30.719	D	C
C	2370.52	158.03	499.673	F	F

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	489.22	32.61	214.173	F	F
B	38.34	2.56	31.639	D	C
C	3926.91	261.79	822.904	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	636.24	42.42	272.585	F	F
B	39.40	2.63	32.012	D	C
C	5483.29	365.55	1146.693	F	F

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	517.26	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	893.00	100.000
B	FLAT	✓	449.00	100.000
C	FLAT	✓	794.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	12.000	881.000
	B	52.000	0.000	397.000
	C	626.000	168.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.12	0.00	0.88
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	1.16	550.08	131.23	F	893.00	893.00	4072.33	273.62	67.87	4745.63	318.86
B	1.42	1349.65	133.57	F	449.00	449.00	4014.07	536.40	66.90	5712.34	763.34
C	0.68	9.65	2.11	A	794.00	794.00	122.94	9.29	2.05	123.06	9.30

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	893.00	223.25	747.73	656.10	166.26	0.00	768.32	723.67	1.162	0.00	36.32	99.023	F
B	449.00	112.25	316.02	176.30	737.69	0.00	325.53	338.50	1.379	0.00	33.24	207.612	F
C	794.00	198.50	785.76	1017.11	36.60	0.00	1166.98	1165.07	0.680	0.00	2.06	9.255	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	893.00	223.25	765.68	662.43	167.97	0.00	767.37	723.67	1.164	36.32	68.15	256.955	F
B	449.00	112.25	315.44	178.26	755.39	0.00	315.86	338.50	1.422	33.24	66.63	589.087	F
C	794.00	198.50	793.87	1034.30	36.53	0.00	1167.03	1165.07	0.680	2.06	2.09	9.638	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	893.00	223.25	766.68	662.47	167.99	0.00	767.36	723.67	1.164	68.15	99.73	403.315	F
B	449.00	112.25	315.18	178.29	756.37	0.00	315.32	338.50	1.424	66.63	100.09	968.513	F
C	794.00	198.50	793.95	1035.05	36.50	0.00	1167.06	1165.07	0.680	2.09	2.11	9.643	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	893.00	223.25	766.99	662.47	168.00	0.00	767.36	723.67	1.164	99.73	131.23	550.081	F
B	449.00	112.25	315.08	178.30	756.68	0.00	315.16	338.50	1.425	100.09	133.57	1349.654	F
C	794.00	198.50	793.98	1035.27	36.49	0.00	1167.06	1165.07	0.680	2.11	2.11	9.645	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	296.79	19.79	99.023	F	F
B	261.93	17.46	207.612	F	F
C	28.60	1.91	9.255	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	784.06	52.27	256.955	F	F
B	749.24	49.95	589.087	F	F
C	31.22	2.08	9.638	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1259.22	83.95	403.315	F	F
B	1250.45	83.36	968.513	F	F
C	31.50	2.10	9.643	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1732.26	115.48	550.081	F	F
B	1752.45	116.83	1349.654	F	F
C	31.62	2.11	9.645	A	A

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	334.43	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ongar Road (N)	
B	B	Doddinghurst Road	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.80	3.80	5.20	0.93	10.03	5.00	0.00	
B	3.00	3.00	5.20	4.23	12.17	7.20	0.00	
C	3.80	3.80	5.10	7.84	19.20	17.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Pelican
B	None
C	None

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
A	3.00	2.90	1.00	6.00	6.00	7.00	4.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.556	860.820
B		(calculated)	(calculated)	0.546	728.491
C		(calculated)	(calculated)	0.736	1193.923

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	627.00	100.000
B	FLAT	✓	248.00	100.000
C	FLAT	✓	1348.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	20.000	607.000
	B	31.000	0.000	217.000
	C	905.000	443.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.13	0.00	0.88
	C	0.67	0.33	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.97	100.25	16.59	F	627.00	627.00	715.84	68.50	11.93	728.61	69.72
B	0.62	23.57	1.59	C	248.00	248.00	87.68	21.21	1.46	87.87	21.26
C	1.15	500.54	183.12	F	1348.00	1348.00	5650.00	251.48	94.17	6509.01	289.72

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	627.00	156.75	588.93	801.42	377.46	0.00	650.82	649.01	0.963	0.00	9.52	44.721	E
B	248.00	62.00	242.45	396.25	570.15	0.00	417.05	385.28	0.595	0.00	1.39	20.043	C
C	1348.00	337.00	1148.58	782.29	30.31	0.00	1171.62	1158.48	1.151	0.00	49.86	86.762	F

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	627.00	156.75	613.73	816.18	384.38	0.00	646.97	649.01	0.969	9.52	12.84	77.104	F
B	248.00	62.00	247.47	403.95	594.15	0.00	403.94	385.28	0.614	1.39	1.52	22.878	C
C	1348.00	337.00	1169.62	810.69	30.93	0.00	1171.15	1158.48	1.151	49.86	94.45	230.283	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	627.00	156.75	618.37	816.83	384.67	0.00	646.81	649.01	0.969	12.84	14.99	90.806	F
B	248.00	62.00	247.82	404.40	598.65	0.00	401.48	385.28	0.618	1.52	1.56	23.354	C
C	1348.00	337.00	1170.52	815.49	30.98	0.00	1171.12	1158.48	1.151	94.45	138.82	365.167	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	627.00	156.75	620.62	817.02	384.76	0.00	646.76	649.01	0.969	14.99	16.59	100.252	F
B	248.00	62.00	247.91	404.56	600.82	0.00	400.29	385.28	0.620	1.56	1.59	23.572	C
C	1348.00	337.00	1170.79	817.74	30.99	0.00	1171.11	1158.48	1.151	138.82	183.12	500.539	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	98.92	6.59	44.721	E	D
B	18.62	1.24	20.043	C	C
C	402.88	26.86	86.762	F	F

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	169.91	11.33	77.104	F	E
B	22.17	1.48	22.878	C	C
C	1082.84	72.19	230.283	F	F

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	209.64	13.98	90.806	F	F
B	23.21	1.55	23.354	C	C
C	1749.66	116.64	365.167	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	237.37	15.82	100.252	F	F
B	23.67	1.58	23.572	C	C
C	2414.61	160.97	500.539	F	F

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 04 A128 Ongar Road - Western Avenue Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 09:55:06

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	1.02	17.37	0.51	C	2.46	27.02	0.72	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	1.85	20.39	0.65	C	0.47	12.50	0.32	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	1.40	23.05	0.59	C	3.86	39.25	0.80	E
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	2.03	22.09	0.67	C	0.49	13.03	0.33	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	1.40	22.99	0.59	C	3.88	39.46	0.80	E
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	2.03	22.06	0.67	C	0.49	13.04	0.33	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	1.93	31.93	0.67	D	83.24	631.69	1.18	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	2.60	26.58	0.73	D	0.59	14.83	0.37	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	1.41	23.36	0.59	C	4.19	42.99	0.82	E
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	2.03	22.15	0.67	C	0.51	13.45	0.34	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 09:55:03

File summary

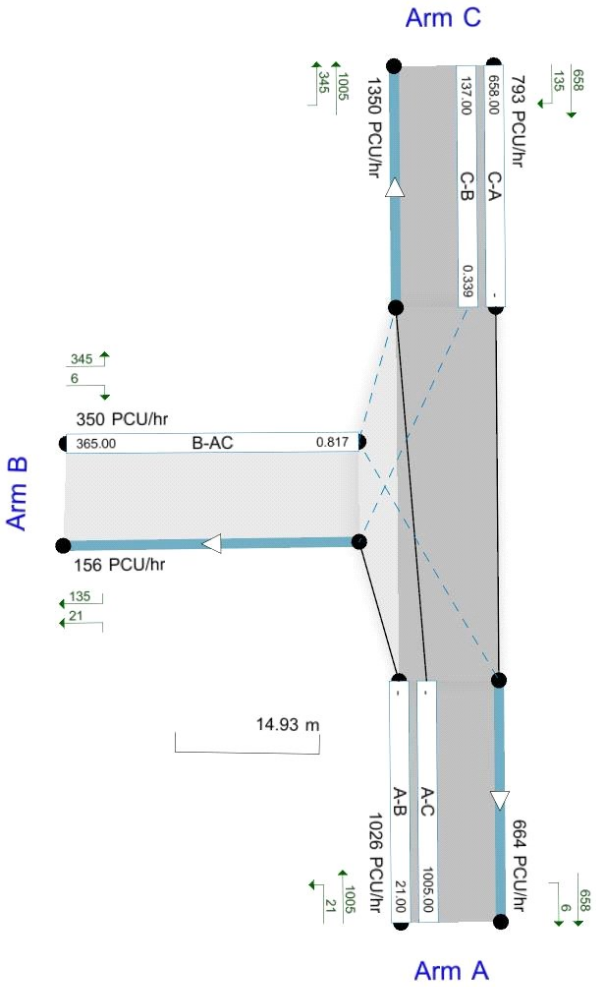
Title	A128 Ongar Road - Western Avenue
Location	Brentwood
Site Number	04
Date	06/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		19.21	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	597.00	100.000
B	FLAT	✓	213.00	100.000
C	FLAT	✓	1194.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	22.000	575.000
	B	33.000	0.000	180.000
	C	863.000	331.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.15	0.00	0.85
	C	0.72	0.28	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.51	17.37	1.02	C	213.00	213.00	58.79	16.56	0.98	58.87	16.58
C-A	-	-	-	-	863.00	863.00	-	-	-	-	-
C-B	0.65	20.39	1.85	C	331.00	331.00	105.64	19.15	1.76	105.85	19.19
A-B	-	-	-	-	22.00	22.00	-	-	-	-	-
A-C	-	-	-	-	575.00	575.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	213.00	53.25	209.08	0.00	422.57	0.504	0.00	0.98	16.580	C
C-A	863.00	215.75	863.00	0.00	-	-	-	-	-	-
C-B	331.00	82.75	323.93	0.00	507.28	0.653	0.00	1.77	18.979	C
A-B	22.00	5.50	22.00	0.00	-	-	-	-	-	-
A-C	575.00	143.75	575.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	213.00	53.25	212.89	0.00	420.19	0.507	0.98	1.01	17.346	C
C-A	863.00	215.75	863.00	0.00	-	-	-	-	-	-
C-B	331.00	82.75	330.79	0.00	507.28	0.653	1.77	1.82	20.331	C
A-B	22.00	5.50	22.00	0.00	-	-	-	-	-	-
A-C	575.00	143.75	575.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	213.00	53.25	212.97	0.00	420.12	0.507	1.01	1.01	17.367	C
C-A	863.00	215.75	863.00	0.00	-	-	-	-	-	-
C-B	331.00	82.75	330.93	0.00	507.28	0.653	1.82	1.84	20.375	C
A-B	22.00	5.50	22.00	0.00	-	-	-	-	-	-
A-C	575.00	143.75	575.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	213.00	53.25	212.98	0.00	420.09	0.507	1.01	1.02	17.374	C
C-A	863.00	215.75	863.00	0.00	-	-	-	-	-	-
C-B	331.00	82.75	330.96	0.00	507.28	0.653	1.84	1.85	20.389	C
A-B	22.00	5.50	22.00	0.00	-	-	-	-	-	-
A-C	575.00	143.75	575.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	13.45	0.90	16.580	C	B
C-A	-	-	-	-	-
C-B	23.56	1.57	18.979	C	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	14.94	1.00	17.346	C	B
C-A	-	-	-	-	-
C-B	26.98	1.80	20.331	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.16	1.01	17.367	C	B
C-A	-	-	-	-	-
C-B	27.45	1.83	20.375	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.24	1.02	17.374	C	B
C-A	-	-	-	-	-
C-B	27.65	1.84	20.389	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		22.85	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	949.00	100.000
B	FLAT	✓	335.00	100.000
C	FLAT	✓	763.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	930.000
	B	6.000	0.000	329.000
	C	628.000	135.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.82	0.18	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.72	27.02	2.46	D	335.00	335.00	138.13	24.74	2.30	138.52	24.81
C-A	-	-	-	-	628.00	628.00	-	-	-	-	-
C-B	0.32	12.50	0.47	B	135.00	135.00	27.39	12.17	0.46	27.40	12.18
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	930.00	930.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.00	83.75	325.82	0.00	467.74	0.716	0.00	2.30	24.044	C
C-A	628.00	157.00	628.00	0.00	-	-	-	-	-	-
C-B	135.00	33.75	133.16	0.00	423.05	0.319	0.00	0.46	12.343	B
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	930.00	232.50	930.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.00	83.75	334.58	0.00	467.67	0.716	2.30	2.40	26.828	D
C-A	628.00	157.00	628.00	0.00	-	-	-	-	-	-
C-B	135.00	33.75	134.98	0.00	423.05	0.319	0.46	0.46	12.494	B
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	930.00	232.50	930.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.00	83.75	334.84	0.00	467.67	0.716	2.40	2.44	26.969	D
C-A	628.00	157.00	628.00	0.00	-	-	-	-	-	-
C-B	135.00	33.75	134.99	0.00	423.05	0.319	0.46	0.47	12.497	B
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	930.00	232.50	930.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.00	83.75	334.92	0.00	467.67	0.716	2.44	2.46	27.022	D
C-A	628.00	157.00	628.00	0.00	-	-	-	-	-	-
C-B	135.00	33.75	135.00	0.00	423.05	0.319	0.47	0.47	12.497	B
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	930.00	232.50	930.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	29.62	1.97	24.044	C	C
C-A	-	-	-	-	-
C-B	6.49	0.43	12.343	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	35.39	2.36	26.828	D	C
C-A	-	-	-	-	-
C-B	6.93	0.46	12.494	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.35	2.42	26.969	D	C
C-A	-	-	-	-	-
C-B	6.97	0.46	12.497	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.77	2.45	27.022	D	C
C-A	-	-	-	-	-
C-B	6.99	0.47	12.497	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		22.47	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	629.00	100.000
B	FLAT	✓	222.00	100.000
C	FLAT	✓	1247.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	602.000
	B	41.000	0.000	181.000
	C	910.000	337.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.18	0.00	0.82
	C	0.73	0.27	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.59	23.05	1.40	C	222.00	222.00	79.63	21.52	1.33	79.79	21.56
C-A	-	-	-	-	910.00	910.00	-	-	-	-	-
C-B	0.67	22.09	2.03	C	337.00	337.00	115.73	20.61	1.93	115.98	20.65
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	602.00	602.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	216.73	0.00	381.23	0.582	0.00	1.32	21.270	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	329.27	0.00	499.62	0.675	0.00	1.93	20.318	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	602.00	150.50	602.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.77	0.00	378.12	0.587	1.32	1.37	22.949	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.74	0.00	499.62	0.675	1.93	2.00	22.006	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	602.00	150.50	602.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.93	0.00	378.02	0.587	1.37	1.39	23.024	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.91	0.00	499.62	0.675	2.00	2.02	22.067	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	602.00	150.50	602.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.97	0.00	377.98	0.587	1.39	1.40	23.047	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.95	0.00	499.62	0.675	2.02	2.03	22.091	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	602.00	150.50	602.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.63	1.18	21.270	C	C
C-A	-	-	-	-	-
C-B	25.53	1.70	20.318	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.30	1.35	22.949	C	C
C-A	-	-	-	-	-
C-B	29.59	1.97	22.006	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.76	1.38	23.024	C	C
C-A	-	-	-	-	-
C-B	30.18	2.01	22.067	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.94	1.40	23.047	C	C
C-A	-	-	-	-	-
C-B	30.43	2.03	22.091	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		32.12	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	990.00	100.000
B	FLAT	✓	367.00	100.000
C	FLAT	✓	788.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	21.000	969.000
	B	6.000	0.000	361.000
	C	651.000	137.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.83	0.17	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.80	39.25	3.86	E	367.00	367.00	208.74	34.13	3.48	209.72	34.29
C-A	-	-	-	-	651.00	651.00	-	-	-	-	-
C-B	0.33	13.03	0.49	B	137.00	137.00	28.94	12.68	0.48	28.96	12.68
A-B	-	-	-	-	21.00	21.00	-	-	-	-	-
A-C	-	-	-	-	969.00	969.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	353.39	0.00	457.30	0.803	0.00	3.40	31.495	D
C-A	651.00	162.75	651.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	135.06	0.00	413.24	0.332	0.00	0.49	12.855	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	969.00	242.25	969.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	365.87	0.00	457.22	0.803	3.40	3.68	38.320	E
C-A	651.00	162.75	651.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.98	0.00	413.24	0.332	0.49	0.49	13.028	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	969.00	242.25	969.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	366.55	0.00	457.22	0.803	3.68	3.80	38.983	E
C-A	651.00	162.75	651.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.99	0.00	413.24	0.332	0.49	0.49	13.031	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	969.00	242.25	969.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	366.75	0.00	457.22	0.803	3.80	3.86	39.252	E
C-A	651.00	162.75	651.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	137.00	0.00	413.24	0.332	0.49	0.49	13.031	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	969.00	242.25	969.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	41.51	2.77	31.495	D	C
C-A	-	-	-	-	-
C-B	6.84	0.46	12.855	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	53.54	3.57	38.320	E	D
C-A	-	-	-	-	-
C-B	7.33	0.49	13.028	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	56.22	3.75	38.983	E	D
C-A	-	-	-	-	-
C-B	7.37	0.49	13.031	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	57.47	3.83	39.252	E	D
C-A	-	-	-	-	-
C-B	7.39	0.49	13.031	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		22.43	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	628.00	100.000
B	FLAT	✓	222.00	100.000
C	FLAT	✓	1247.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	601.000
	B	41.000	0.000	181.000
	C	910.000	337.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.18	0.00	0.82
	C	0.73	0.27	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.59	22.99	1.40	C	222.00	222.00	79.45	21.47	1.32	79.61	21.51
C-A	-	-	-	-	910.00	910.00	-	-	-	-	-
C-B	0.67	22.06	2.03	C	337.00	337.00	115.58	20.58	1.93	115.83	20.62
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	601.00	601.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	216.74	0.00	381.61	0.582	0.00	1.31	21.226	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	329.28	0.00	499.86	0.674	0.00	1.93	20.292	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	601.00	150.25	601.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.77	0.00	378.51	0.587	1.31	1.37	22.893	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.74	0.00	499.86	0.674	1.93	2.00	21.974	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	601.00	150.25	601.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.93	0.00	378.40	0.587	1.37	1.39	22.967	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.91	0.00	499.86	0.674	2.00	2.02	22.001	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	601.00	150.25	601.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	222.00	55.50	221.97	0.00	378.36	0.587	1.39	1.40	22.991	C
C-A	910.00	227.50	910.00	0.00	-	-	-	-	-	-
C-B	337.00	84.25	336.95	0.00	499.86	0.674	2.02	2.03	22.058	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	601.00	150.25	601.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.60	1.17	21.226	C	C
C-A	-	-	-	-	-
C-B	25.50	1.70	20.292	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.25	1.35	22.893	C	C
C-A	-	-	-	-	-
C-B	29.55	1.97	21.974	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.71	1.38	22.967	C	C
C-A	-	-	-	-	-
C-B	30.14	2.01	22.001	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.89	1.39	22.991	C	C
C-A	-	-	-	-	-
C-B	30.39	2.03	22.058	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		32.28	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	991.00	100.000
B	FLAT	✓	367.00	100.000
C	FLAT	✓	791.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	20.000	971.000
	B	6.000	0.000	361.000
	C	654.000	137.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.83	0.17	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.80	39.46	3.88	E	367.00	367.00	209.68	34.28	3.49	210.67	34.44
C-A	-	-	-	-	654.00	654.00	-	-	-	-	-
C-B	0.33	13.04	0.49	B	137.00	137.00	28.97	12.69	0.48	28.98	12.69
A-B	-	-	-	-	20.00	20.00	-	-	-	-	-
A-C	-	-	-	-	971.00	971.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	353.34	0.00	456.80	0.803	0.00	3.42	31.612	D
C-A	654.00	163.50	654.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	135.06	0.00	413.00	0.332	0.00	0.49	12.867	B
A-B	20.00	5.00	20.00	0.00	-	-	-	-	-	-
A-C	971.00	242.75	971.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	365.85	0.00	456.72	0.804	3.42	3.70	38.510	E
C-A	654.00	163.50	654.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.98	0.00	413.00	0.332	0.49	0.49	13.040	B
A-B	20.00	5.00	20.00	0.00	-	-	-	-	-	-
A-C	971.00	242.75	971.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	366.54	0.00	456.72	0.804	3.70	3.82	39.185	E
C-A	654.00	163.50	654.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.99	0.00	413.00	0.332	0.49	0.49	13.042	B
A-B	20.00	5.00	20.00	0.00	-	-	-	-	-	-
A-C	971.00	242.75	971.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	367.00	91.75	366.75	0.00	456.72	0.804	3.82	3.88	39.461	E
C-A	654.00	163.50	654.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	137.00	0.00	413.00	0.332	0.49	0.49	13.042	B
A-B	20.00	5.00	20.00	0.00	-	-	-	-	-	-
A-C	971.00	242.75	971.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	41.65	2.78	31.612	D	C
C-A	-	-	-	-	-
C-B	6.85	0.46	12.867	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	53.77	3.58	38.510	E	D
C-A	-	-	-	-	-
C-B	7.34	0.49	13.040	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	56.49	3.77	39.185	E	D
C-A	-	-	-	-	-
C-B	7.38	0.49	13.042	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	57.76	3.85	39.461	E	D
C-A	-	-	-	-	-
C-B	7.40	0.49	13.042	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		28.63	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	649.00	100.000
B	FLAT	✓	223.00	100.000
C	FLAT	✓	1417.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	622.000
	B	39.000	0.000	184.000
	C	1057.000	360.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.17	0.00	0.83
	C	0.75	0.25	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.67	31.93	1.93	D	223.00	223.00	106.91	28.77	1.78	107.25	28.86
C-A	-	-	-	-	1057.00	1057.00	-	-	-	-	-
C-B	0.73	26.58	2.60	D	360.00	360.00	145.87	24.31	2.43	146.28	24.38
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	622.00	622.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.00	55.75	216.06	0.00	340.63	0.655	0.00	1.73	27.585	D
C-A	1057.00	264.25	1057.00	0.00	-	-	-	-	-	-
C-B	360.00	90.00	350.31	0.00	494.84	0.728	0.00	2.42	23.566	C
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	622.00	155.50	622.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.00	55.75	222.47	0.00	335.58	0.665	1.73	1.87	31.521	D
C-A	1057.00	264.25	1057.00	0.00	-	-	-	-	-	-
C-B	360.00	90.00	359.55	0.00	494.84	0.728	2.42	2.54	26.382	D
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	622.00	155.50	622.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.00	55.75	222.83	0.00	335.34	0.665	1.87	1.91	31.826	D
C-A	1057.00	264.25	1057.00	0.00	-	-	-	-	-	-
C-B	360.00	90.00	359.83	0.00	494.84	0.728	2.54	2.58	26.524	D
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	622.00	155.50	622.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.00	55.75	222.92	0.00	335.25	0.665	1.91	1.93	31.926	D
C-A	1057.00	264.25	1057.00	0.00	-	-	-	-	-	-
C-B	360.00	90.00	359.91	0.00	494.84	0.728	2.58	2.60	26.580	D
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	622.00	155.50	622.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	22.45	1.50	27.585	D	C
C-A	-	-	-	-	-
C-B	31.23	2.08	23.566	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	27.27	1.82	31.521	D	C
C-A	-	-	-	-	-
C-B	37.38	2.49	26.382	D	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	28.38	1.89	31.826	D	C
C-A	-	-	-	-	-
C-B	38.41	2.56	26.524	D	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	28.82	1.92	31.926	D	C
C-A	-	-	-	-	-
C-B	38.86	2.59	26.580	D	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		495.77	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1105.00	100.000
B	FLAT	✓	506.00	100.000
C	FLAT	✓	825.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	21.000	1084.000
	B	6.000	0.000	500.000
	C	682.000	143.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.01	0.00	0.99
	C	0.83	0.17	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.18	631.69	83.24	F	506.00	506.00	2612.77	309.81	43.55	3098.65	367.43
C-A	-	-	-	-	682.00	682.00	-	-	-	-	-
C-B	0.37	14.83	0.59	B	143.00	143.00	34.23	14.36	0.57	34.25	14.37
A-B	-	-	-	-	21.00	21.00	-	-	-	-	-
A-C	-	-	-	-	1084.00	1084.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	506.00	126.50	410.68	0.00	427.91	1.182	0.00	23.83	121.658	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	143.00	35.75	140.70	0.00	385.72	0.371	0.00	0.57	14.564	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1084.00	271.00	1084.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	506.00	126.50	425.96	0.00	427.82	1.183	23.83	43.84	303.649	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	143.00	35.75	142.97	0.00	385.72	0.371	0.57	0.58	14.825	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1084.00	271.00	1084.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	506.00	126.50	427.02	0.00	427.82	1.183	43.84	63.58	467.657	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	143.00	35.75	142.99	0.00	385.72	0.371	0.58	0.58	14.828	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1084.00	271.00	1084.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	506.00	126.50	427.38	0.00	427.82	1.183	63.58	83.24	631.693	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	143.00	35.75	142.99	0.00	385.72	0.371	0.58	0.59	14.831	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1084.00	271.00	1084.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	197.53	13.17	121.658	F	F
C-A	-	-	-	-	-
C-B	8.03	0.54	14.564	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	508.13	33.88	303.649	F	F
C-A	-	-	-	-	-
C-B	8.68	0.58	14.825	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	805.85	53.72	467.657	F	F
C-A	-	-	-	-	-
C-B	8.74	0.58	14.828	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1101.26	73.42	631.693	F	F
C-A	-	-	-	-	-
C-B	8.77	0.58	14.831	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		22.63	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	635.00	100.000
B	FLAT	✓	220.00	100.000
C	FLAT	✓	1284.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	25.000	610.000
	B	39.000	0.000	181.000
	C	948.000	336.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.18	0.00	0.82
	C	0.74	0.26	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.59	23.36	1.41	C	220.00	220.00	79.90	21.79	1.33	80.06	21.83
C-A	-	-	-	-	948.00	948.00	-	-	-	-	-
C-B	0.67	22.15	2.03	C	336.00	336.00	115.68	20.66	1.93	115.93	20.70
A-B	-	-	-	-	25.00	25.00	-	-	-	-	-
A-C	-	-	-	-	610.00	610.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	214.72	0.00	377.25	0.583	0.00	1.32	21.520	C
C-A	948.00	237.00	948.00	0.00	-	-	-	-	-	-
C-B	336.00	84.00	328.27	0.00	498.19	0.674	0.00	1.93	20.368	C
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	219.77	0.00	374.03	0.588	1.32	1.38	23.257	C
C-A	948.00	237.00	948.00	0.00	-	-	-	-	-	-
C-B	336.00	84.00	335.74	0.00	498.19	0.674	1.93	2.00	22.065	C
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	219.93	0.00	373.91	0.588	1.38	1.40	23.336	C
C-A	948.00	237.00	948.00	0.00	-	-	-	-	-	-
C-B	336.00	84.00	335.91	0.00	498.19	0.674	2.00	2.02	22.126	C
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	219.97	0.00	373.87	0.588	1.40	1.41	23.360	C
C-A	948.00	237.00	948.00	0.00	-	-	-	-	-	-
C-B	336.00	84.00	335.95	0.00	498.19	0.674	2.02	2.03	22.151	C
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.66	1.18	21.520	C	C
C-A	-	-	-	-	-
C-B	25.52	1.70	20.368	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.37	1.36	23.257	C	C
C-A	-	-	-	-	-
C-B	29.58	1.97	22.065	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.84	1.39	23.336	C	C
C-A	-	-	-	-	-
C-B	30.17	2.01	22.126	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	21.03	1.40	23.360	C	C
C-A	-	-	-	-	-
C-B	30.42	2.03	22.151	C	C
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A128 Ongar Road - Western Avenue	T-Junction	Two-way	A,B,C		34.93	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Ongar Road S		Major
B	B	Western Avenue		Minor
C	C	Ongar Road N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00	✓	2.20	131.54		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.30										31	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573.325	0.099	0.251	0.158	0.358
1	B-C	733.602	0.107	0.270	-	-
1	C-B	650.139	0.239	0.239	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1026.00	100.000
B	FLAT	✓	365.00	100.000
C	FLAT	✓	795.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	21.000	1005.000
	B	6.000	0.000	359.000
	C	658.000	137.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.83	0.17	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.82	42.99	4.19	E	365.00	365.00	224.26	36.86	3.74	225.43	37.06
C-A	-	-	-	-	658.00	658.00	-	-	-	-	-
C-B	0.34	13.45	0.51	B	137.00	137.00	29.84	13.07	0.50	29.86	13.08
A-B	-	-	-	-	21.00	21.00	-	-	-	-	-
A-C	-	-	-	-	1005.00	1005.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	365.00	91.25	350.48	0.00	447.03	0.817	0.00	3.63	33.537	D
C-A	658.00	164.50	658.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	135.00	0.00	404.62	0.339	0.00	0.50	13.259	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1005.00	251.25	1005.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	365.00	91.25	363.63	0.00	446.94	0.817	3.63	3.97	41.704	E
C-A	658.00	164.50	658.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.98	0.00	404.62	0.339	0.50	0.51	13.448	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1005.00	251.25	1005.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	365.00	91.25	364.44	0.00	446.94	0.817	3.97	4.11	42.610	E
C-A	658.00	164.50	658.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	136.99	0.00	404.62	0.339	0.51	0.51	13.450	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1005.00	251.25	1005.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	365.00	91.25	364.69	0.00	446.94	0.817	4.11	4.19	42.990	E
C-A	658.00	164.50	658.00	0.00	-	-	-	-	-	-
C-B	137.00	34.25	137.00	0.00	404.62	0.339	0.51	0.51	13.450	B
A-B	21.00	5.25	21.00	0.00	-	-	-	-	-	-
A-C	1005.00	251.25	1005.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	43.73	2.92	33.537	D	C
C-A	-	-	-	-	-
C-B	7.05	0.47	13.259	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	57.47	3.83	41.704	E	D
C-A	-	-	-	-	-
C-B	7.56	0.50	13.448	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	60.75	4.05	42.610	E	D
C-A	-	-	-	-	-
C-B	7.61	0.51	13.450	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	62.31	4.15	42.990	E	D
C-A	-	-	-	-	-
C-B	7.63	0.51	13.450	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 05 A128 - Will HW -Ongar Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 15:55:03

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	0.26	3.65	0.21	A	0.73	4.97	0.42	A
Arm B	0.99	5.92	0.50	A	0.78	5.76	0.44	A
Arm C	0.24	4.35	0.19	A	0.24	4.35	0.19	A
	A1 - Option 1							
Arm A	0.27	3.68	0.21	A	0.85	5.31	0.46	A
Arm B	1.21	6.61	0.55	A	0.91	6.39	0.48	A
Arm C	0.24	4.37	0.20	A	0.24	4.36	0.20	A
	A1 - Option 2							
Arm A	0.27	3.68	0.21	A	0.86	5.33	0.46	A
Arm B	1.21	6.61	0.55	A	0.93	6.44	0.48	A
Arm C	0.24	4.37	0.20	A	0.24	4.36	0.20	A
	A1 - Option 3							
Arm A	0.28	3.70	0.22	A	0.89	5.44	0.47	A
Arm B	1.90	8.68	0.66	A	1.04	6.71	0.51	A
Arm C	0.25	4.44	0.20	A	0.25	4.42	0.20	A
	A1 - Option 4							
Arm A	0.28	3.69	0.22	A	0.88	5.40	0.47	A
Arm B	1.44	7.30	0.59	A	0.99	6.64	0.50	A
Arm C	0.24	4.39	0.20	A	0.24	4.38	0.20	A

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 15:55:00

File summary

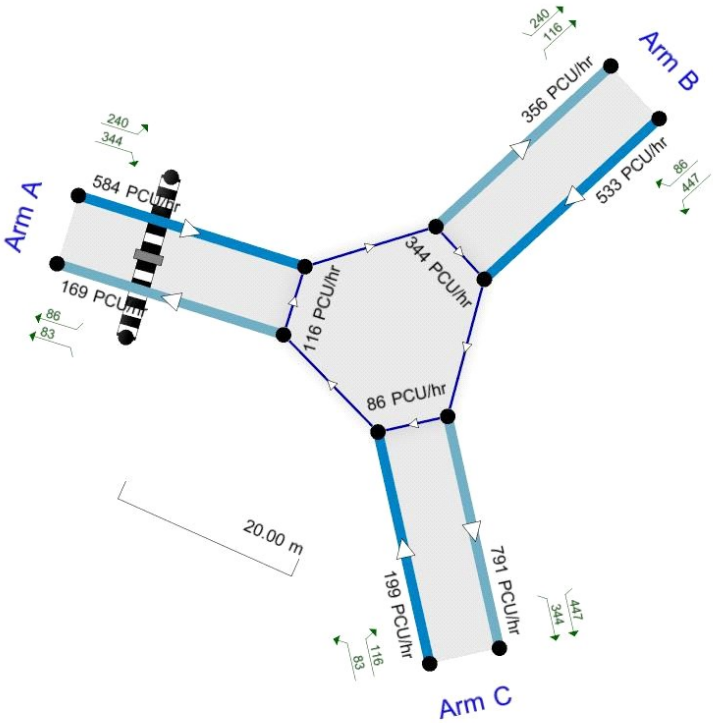
Title	05-06 A128 - William Hunter Way & Ongar Road
Location	Brentwood
Site Number	05
Date	23/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.08	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	256.00	100.000
B	FLAT	✓	607.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	73.000	183.000
	B	78.000	0.000	529.000
	C	259.000	512.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.29	0.71
	B	0.13	0.00	0.87
	C	0.34	0.66	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.21	3.65	0.26	A	256.00	256.00	15.43	3.62	0.26	15.43	3.62
B	0.50	5.92	0.99	A	607.00	607.00	58.78	5.81	0.98	58.81	5.81
C	0.19	4.35	0.24	A	200.00	200.00	14.36	4.31	0.24	14.36	4.31

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	256.00	64.00	254.97	144.36	132.18	0.00	1243.56	909.04	0.206	0.00	0.26	3.638	A
B	607.00	151.75	603.06	204.88	182.26	0.00	1215.78	824.46	0.499	0.00	0.98	5.838	A
C	200.00	50.00	199.04	707.83	77.49	0.00	1027.87	1011.34	0.195	0.00	0.24	4.339	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	256.00	64.00	256.00	145.18	132.81	0.00	1243.16	909.04	0.206	0.26	0.26	3.645	A
B	607.00	151.75	606.97	205.81	183.00	0.00	1215.17	824.46	0.500	0.98	0.99	5.918	A
C	200.00	50.00	200.00	711.97	78.00	0.00	1027.58	1011.34	0.195	0.24	0.24	4.349	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	256.00	64.00	256.00	145.18	132.81	0.00	1243.16	909.04	0.206	0.26	0.26	3.645	A
B	607.00	151.75	606.99	205.81	183.00	0.00	1215.16	824.46	0.500	0.99	0.99	5.918	A
C	200.00	50.00	200.00	711.99	78.00	0.00	1027.58	1011.34	0.195	0.24	0.24	4.349	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	256.00	64.00	256.00	145.18	132.81	0.00	1243.16	909.04	0.206	0.26	0.26	3.645	A
B	607.00	151.75	607.00	205.81	183.00	0.00	1215.16	824.46	0.500	0.99	0.99	5.918	A
C	200.00	50.00	200.00	712.00	78.00	0.00	1027.58	1011.34	0.195	0.24	0.24	4.349	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.79	0.25	3.638	A	A
B	14.15	0.94	5.838	A	A
C	3.51	0.23	4.339	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.88	0.26	3.645	A	A
B	14.83	0.99	5.918	A	A
C	3.61	0.24	4.349	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.88	0.26	3.645	A	A
B	14.89	0.99	5.918	A	A
C	3.62	0.24	4.349	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.88	0.26	3.645	A	A
B	14.91	0.99	5.918	A	A
C	3.62	0.24	4.349	A	A

(Default Analysis Set) - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.19	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	531.00	100.000
B	FLAT	✓	488.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	226.000	305.000
	B	78.000	0.000	410.000
	C	500.000	664.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.43	0.57
	B	0.16	0.00	0.84
	C	0.43	0.57	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.42	4.97	0.73	A	531.00	531.00	43.40	4.90	0.72	43.41	4.91
B	0.44	5.76	0.78	A	488.00	488.00	46.05	5.66	0.77	46.07	5.66
C	0.19	4.35	0.24	A	200.00	200.00	14.36	4.31	0.24	14.36	4.31

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	528.09	163.01	113.54	0.00	1255.11	975.53	0.423	0.00	0.73	4.932	A
B	488.00	122.00	484.92	338.30	303.33	0.00	1114.45	899.36	0.438	0.00	0.77	5.692	A
C	200.00	50.00	199.04	710.74	77.51	0.00	1027.87	989.36	0.195	0.00	0.24	4.339	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	530.99	163.91	114.09	0.00	1254.78	975.53	0.423	0.73	0.73	4.973	A
B	488.00	122.00	487.98	340.08	304.99	0.00	1113.06	899.36	0.438	0.77	0.78	5.758	A
C	200.00	50.00	200.00	714.97	78.00	0.00	1027.58	989.36	0.195	0.24	0.24	4.349	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	531.00	163.91	114.09	0.00	1254.78	975.53	0.423	0.73	0.73	4.973	A
B	488.00	122.00	487.99	340.09	305.00	0.00	1113.06	899.36	0.438	0.78	0.78	5.758	A
C	200.00	50.00	200.00	714.99	78.00	0.00	1027.58	989.36	0.195	0.24	0.24	4.349	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	531.00	132.75	531.00	163.91	114.09	0.00	1254.78	975.53	0.423	0.73	0.73	4.973	A
B	488.00	122.00	488.00	340.09	305.00	0.00	1113.06	899.36	0.438	0.78	0.78	5.758	A
C	200.00	50.00	200.00	715.00	78.00	0.00	1027.58	989.36	0.195	0.24	0.24	4.349	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.53	0.70	4.932	A	A
B	11.12	0.74	5.692	A	A
C	3.51	0.23	4.339	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.93	0.73	4.973	A	A
B	11.61	0.77	5.758	A	A
C	3.61	0.24	4.349	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.96	0.73	4.973	A	A
B	11.65	0.78	5.758	A	A
C	3.62	0.24	4.349	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.97	0.73	4.973	A	A
B	11.67	0.78	5.758	A	A
C	3.62	0.24	4.349	A	A

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.52	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	267.00	100.000
B	FLAT	✓	663.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	75.000	192.000
	B	85.000	0.000	578.000
	C	300.000	549.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.13	0.00	0.87
	C	0.35	0.65	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.21	3.68	0.27	A	267.00	267.00	16.23	3.65	0.27	16.23	3.65
B	0.55	6.61	1.21	A	663.00	663.00	71.45	6.47	1.19	71.49	6.47
C	0.20	4.37	0.24	A	200.00	200.00	14.43	4.33	0.24	14.43	4.33

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	265.91	154.72	128.70	0.00	1245.71	919.63	0.214	0.00	0.27	3.671	A
B	663.00	165.75	658.21	203.40	191.22	0.00	1208.28	814.85	0.549	0.00	1.20	6.490	A
C	200.00	50.00	199.03	765.05	84.39	0.00	1023.87	1012.19	0.195	0.00	0.24	4.360	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.66	129.33	0.00	1245.33	919.63	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.96	204.33	192.00	0.00	1207.63	814.85	0.549	1.20	1.21	6.609	A
C	200.00	50.00	200.00	769.96	84.99	0.00	1023.51	1012.19	0.195	0.24	0.24	4.371	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.67	129.33	0.00	1245.32	919.63	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.99	204.33	192.00	0.00	1207.63	814.85	0.549	1.21	1.21	6.609	A
C	200.00	50.00	200.00	769.99	85.00	0.00	1023.51	1012.19	0.195	0.24	0.24	4.371	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.67	129.33	0.00	1245.32	919.63	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.99	204.33	192.00	0.00	1207.63	814.85	0.549	1.21	1.21	6.609	A
C	200.00	50.00	200.00	769.99	85.00	0.00	1023.51	1012.19	0.195	0.24	0.24	4.371	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.98	0.27	3.671	A	A
B	17.09	1.14	6.490	A	A
C	3.53	0.24	4.360	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.08	0.27	3.678	A	A
B	18.05	1.20	6.609	A	A
C	3.63	0.24	4.371	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.08	0.27	3.678	A	A
B	18.14	1.21	6.609	A	A
C	3.63	0.24	4.371	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.09	0.27	3.678	A	A
B	18.17	1.21	6.609	A	A
C	3.64	0.24	4.371	A	A

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.60	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	577.00	100.000
B	FLAT	✓	517.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	233.000	344.000
	B	83.000	0.000	434.000
	C	531.000	715.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.40	0.60
	B	0.16	0.00	0.84
	C	0.43	0.57	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.46	5.31	0.85	A	577.00	577.00	50.31	5.23	0.84	50.32	5.23
B	0.48	6.39	0.91	A	517.00	517.00	53.97	6.26	0.90	53.99	6.27
C	0.20	4.36	0.24	A	200.00	200.00	14.41	4.32	0.24	14.41	4.32

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	577.00	144.25	573.63	167.24	114.21	0.00	1254.70	973.03	0.460	0.00	0.84	5.261	A
B	517.00	129.25	513.39	345.85	341.99	0.00	1082.10	882.80	0.478	0.00	0.90	6.292	A
C	200.00	50.00	199.04	772.96	82.42	0.00	1025.01	990.54	0.195	0.00	0.24	4.354	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	577.00	144.25	576.98	168.23	114.77	0.00	1254.36	973.03	0.460	0.84	0.85	5.314	A
B	517.00	129.25	516.97	347.76	343.99	0.00	1080.42	882.80	0.479	0.90	0.91	6.388	A
C	200.00	50.00	200.00	777.96	82.99	0.00	1024.68	990.54	0.195	0.24	0.24	4.365	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	577.00	144.25	576.99	168.23	114.77	0.00	1254.36	973.03	0.460	0.85	0.85	5.314	A
B	517.00	129.25	516.99	347.76	344.00	0.00	1080.42	882.80	0.479	0.91	0.91	6.388	A
C	200.00	50.00	200.00	777.99	83.00	0.00	1024.67	990.54	0.195	0.24	0.24	4.365	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	577.00	144.25	577.00	168.23	114.77	0.00	1254.35	973.03	0.460	0.85	0.85	5.314	A
B	517.00	129.25	517.00	347.77	344.00	0.00	1080.42	882.80	0.479	0.91	0.91	6.388	A
C	200.00	50.00	200.00	777.99	83.00	0.00	1024.67	990.54	0.195	0.24	0.24	4.365	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.17	0.81	5.261	A	A
B	12.96	0.86	6.292	A	A
C	3.53	0.24	4.354	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.68	0.85	5.314	A	A
B	13.62	0.91	6.388	A	A
C	3.62	0.24	4.365	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.72	0.85	5.314	A	A
B	13.68	0.91	6.388	A	A
C	3.63	0.24	4.365	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.74	0.85	5.314	A	A
B	13.71	0.91	6.388	A	A
C	3.63	0.24	4.365	A	A

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.52	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	267.00	100.000
B	FLAT	✓	663.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	75.000	192.000
	B	85.000	0.000	578.000
	C	302.000	549.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.13	0.00	0.87
	C	0.35	0.65	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.21	3.68	0.27	A	267.00	267.00	16.23	3.65	0.27	16.23	3.65
B	0.55	6.61	1.21	A	663.00	663.00	71.45	6.47	1.19	71.49	6.47
C	0.20	4.37	0.24	A	200.00	200.00	14.43	4.33	0.24	14.43	4.33

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	265.91	155.02	128.40	0.00	1245.90	920.56	0.214	0.00	0.27	3.670	A
B	663.00	165.75	658.21	203.10	191.22	0.00	1208.28	814.28	0.549	0.00	1.20	6.490	A
C	200.00	50.00	199.03	765.05	84.39	0.00	1023.87	1012.24	0.195	0.00	0.24	4.360	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.97	129.02	0.00	1245.51	920.56	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.96	204.02	192.00	0.00	1207.63	814.28	0.549	1.20	1.21	6.609	A
C	200.00	50.00	200.00	769.96	84.99	0.00	1023.51	1012.24	0.195	0.24	0.24	4.371	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.97	129.02	0.00	1245.51	920.56	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.99	204.02	192.00	0.00	1207.63	814.28	0.549	1.21	1.21	6.609	A
C	200.00	50.00	200.00	769.99	85.00	0.00	1023.51	1012.24	0.195	0.24	0.24	4.371	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	267.00	66.75	267.00	155.97	129.02	0.00	1245.51	920.56	0.214	0.27	0.27	3.678	A
B	663.00	165.75	662.99	204.02	192.00	0.00	1207.63	814.28	0.549	1.21	1.21	6.609	A
C	200.00	50.00	200.00	769.99	85.00	0.00	1023.51	1012.24	0.195	0.24	0.24	4.371	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.98	0.27	3.670	A	A
B	17.09	1.14	6.490	A	A
C	3.53	0.24	4.360	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.08	0.27	3.678	A	A
B	18.05	1.20	6.609	A	A
C	3.63	0.24	4.371	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.08	0.27	3.678	A	A
B	18.14	1.21	6.609	A	A
C	3.63	0.24	4.371	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.09	0.27	3.678	A	A
B	18.17	1.21	6.609	A	A
C	3.64	0.24	4.371	A	A

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.63	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	579.00	100.000
B	FLAT	✓	520.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	233.000	346.000
	B	83.000	0.000	437.000
	C	532.000	718.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.40	0.60
	B	0.16	0.00	0.84
	C	0.43	0.57	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.46	5.33	0.86	A	579.00	579.00	50.63	5.25	0.84	50.65	5.25
B	0.48	6.44	0.93	A	520.00	520.00	54.73	6.31	0.91	54.75	6.32
C	0.20	4.36	0.24	A	200.00	200.00	14.41	4.32	0.24	14.41	4.32

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	579.00	144.75	575.61	167.13	114.33	0.00	1254.63	972.49	0.461	0.00	0.85	5.275	A
B	520.00	130.00	516.34	345.96	343.97	0.00	1080.44	881.94	0.481	0.00	0.92	6.342	A
C	200.00	50.00	199.04	777.90	82.42	0.00	1025.01	991.09	0.195	0.00	0.24	4.354	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	579.00	144.75	578.98	168.11	114.88	0.00	1254.29	972.49	0.462	0.85	0.85	5.330	A
B	520.00	130.00	519.97	347.87	345.99	0.00	1078.75	881.94	0.482	0.92	0.92	6.442	A
C	200.00	50.00	200.00	782.96	82.99	0.00	1024.68	991.09	0.195	0.24	0.24	4.365	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	579.00	144.75	578.99	168.12	114.88	0.00	1254.29	972.49	0.462	0.85	0.85	5.330	A
B	520.00	130.00	519.99	347.88	346.00	0.00	1078.74	881.94	0.482	0.92	0.93	6.442	A
C	200.00	50.00	200.00	782.99	83.00	0.00	1024.67	991.09	0.195	0.24	0.24	4.365	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	579.00	144.75	579.00	168.12	114.88	0.00	1254.28	972.49	0.462	0.85	0.86	5.330	A
B	520.00	130.00	520.00	347.88	346.00	0.00	1078.74	881.94	0.482	0.93	0.93	6.442	A
C	200.00	50.00	200.00	782.99	83.00	0.00	1024.67	991.09	0.195	0.24	0.24	4.365	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.25	0.82	5.275	A	A
B	13.14	0.88	6.342	A	A
C	3.53	0.24	4.354	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.76	0.85	5.330	A	A
B	13.81	0.92	6.442	A	A
C	3.62	0.24	4.365	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.80	0.85	5.330	A	A
B	13.88	0.93	6.442	A	A
C	3.63	0.24	4.365	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.82	0.85	5.330	A	A
B	13.90	0.93	6.442	A	A
C	3.63	0.24	4.365	A	A

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	6.95	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	270.00	100.000
B	FLAT	✓	794.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	79.000	191.000
	B	106.000	0.000	688.000
	C	279.000	568.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.29	0.71
	B	0.13	0.00	0.87
	C	0.33	0.67	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.22	3.70	0.28	A	270.00	270.00	16.51	3.67	0.28	16.52	3.67
B	0.66	8.68	1.90	A	794.00	794.00	111.12	8.40	1.85	111.21	8.40
C	0.20	4.44	0.25	A	200.00	200.00	14.64	4.39	0.24	14.64	4.39

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	270.00	67.50	268.90	170.56	133.46	0.00	1242.76	906.18	0.217	0.00	0.28	3.694	A
B	794.00	198.50	786.55	212.14	190.22	0.00	1209.12	831.81	0.657	0.00	1.86	8.380	A
C	200.00	50.00	199.02	871.77	105.01	0.00	1011.88	1008.37	0.198	0.00	0.24	4.423	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	270.00	67.50	270.00	171.86	134.12	0.00	1242.35	906.18	0.217	0.28	0.28	3.701	A
B	794.00	198.50	793.89	213.12	191.00	0.00	1208.47	831.81	0.657	1.86	1.89	8.676	A
C	200.00	50.00	200.00	878.90	105.99	0.00	1011.31	1008.37	0.198	0.24	0.25	4.436	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	270.00	67.50	270.00	171.87	134.12	0.00	1242.35	906.18	0.217	0.28	0.28	3.701	A
B	794.00	198.50	793.96	213.12	191.00	0.00	1208.47	831.81	0.657	1.89	1.90	8.682	A
C	200.00	50.00	200.00	878.97	106.00	0.00	1011.31	1008.37	0.198	0.25	0.25	4.436	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	270.00	67.50	270.00	171.88	134.12	0.00	1242.35	906.18	0.217	0.28	0.28	3.701	A
B	794.00	198.50	793.98	213.12	191.00	0.00	1208.47	831.81	0.657	1.90	1.90	8.683	A
C	200.00	50.00	200.00	878.98	106.00	0.00	1011.31	1008.37	0.198	0.25	0.25	4.436	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.05	0.27	3.694	A	A
B	26.04	1.74	8.380	A	A
C	3.58	0.24	4.423	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.15	0.28	3.701	A	A
B	28.17	1.88	8.676	A	A
C	3.68	0.25	4.436	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.16	0.28	3.701	A	A
B	28.41	1.89	8.682	A	A
C	3.69	0.25	4.436	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.16	0.28	3.701	A	A
B	28.50	1.90	8.683	A	A
C	3.69	0.25	4.436	A	A

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.81	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	589.00	100.000
B	FLAT	✓	558.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	262.000	327.000
	B	100.000	0.000	458.000
	C	520.000	802.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.44	0.56
	B	0.18	0.00	0.82
	C	0.39	0.61	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.47	5.44	0.89	A	589.00	589.00	52.57	5.36	0.88	52.59	5.36
B	0.51	6.71	1.04	A	558.00	558.00	61.05	6.56	1.02	61.08	6.57
C	0.20	4.42	0.25	A	200.00	200.00	14.58	4.37	0.24	14.58	4.37

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	589.00	147.25	585.48	177.55	120.74	0.00	1250.65	958.06	0.471	0.00	0.88	5.385	A
B	558.00	139.50	553.91	381.17	325.05	0.00	1096.28	923.16	0.509	0.00	1.02	6.590	A
C	200.00	50.00	199.02	779.69	99.27	0.00	1015.22	976.75	0.197	0.00	0.24	4.405	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	589.00	147.25	588.98	178.66	121.33	0.00	1250.29	958.06	0.471	0.88	0.89	5.443	A
B	558.00	139.50	557.96	383.32	326.99	0.00	1094.65	923.16	0.510	1.02	1.03	6.707	A
C	200.00	50.00	200.00	784.96	99.99	0.00	1014.80	976.75	0.197	0.24	0.24	4.417	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	589.00	147.25	588.99	178.67	121.33	0.00	1250.28	958.06	0.471	0.89	0.89	5.443	A
B	558.00	139.50	557.99	383.33	327.00	0.00	1094.65	923.16	0.510	1.03	1.03	6.707	A
C	200.00	50.00	200.00	784.99	100.00	0.00	1014.79	976.75	0.197	0.24	0.24	4.417	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	589.00	147.25	589.00	178.67	121.33	0.00	1250.28	958.06	0.471	0.89	0.89	5.443	A
B	558.00	139.50	557.99	383.33	327.00	0.00	1094.64	923.16	0.510	1.03	1.04	6.707	A
C	200.00	50.00	200.00	784.99	100.00	0.00	1014.79	976.75	0.197	0.24	0.25	4.417	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.70	0.85	5.385	A	A
B	14.62	0.97	6.590	A	A
C	3.57	0.24	4.405	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.25	0.88	5.443	A	A
B	15.41	1.03	6.707	A	A
C	3.67	0.24	4.417	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.30	0.89	5.443	A	A
B	15.49	1.03	6.707	A	A
C	3.67	0.24	4.417	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.32	0.89	5.443	A	A
B	15.53	1.04	6.707	A	A
C	3.68	0.25	4.417	A	A

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.99	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	269.00	100.000
B	FLAT	✓	714.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	76.000	193.000
	B	90.000	0.000	624.000
	C	293.000	576.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.13	0.00	0.87
	C	0.34	0.66	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.22	3.69	0.28	A	269.00	269.00	16.42	3.66	0.27	16.42	3.66
B	0.59	7.30	1.44	A	714.00	714.00	84.72	7.12	1.41	84.77	7.12
C	0.20	4.39	0.24	A	200.00	200.00	14.48	4.34	0.24	14.48	4.34

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	269.00	67.25	267.90	156.39	131.92	0.00	1243.71	909.27	0.216	0.00	0.27	3.686	A
B	714.00	178.50	708.32	207.61	192.21	0.00	1207.45	822.32	0.591	0.00	1.42	7.135	A
C	200.00	50.00	199.03	811.25	89.28	0.00	1021.02	1012.67	0.196	0.00	0.24	4.376	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	269.00	67.25	269.00	157.43	132.56	0.00	1243.32	909.27	0.216	0.27	0.28	3.693	A
B	714.00	178.50	713.94	208.56	193.00	0.00	1206.80	822.32	0.592	1.42	1.43	7.301	A
C	200.00	50.00	200.00	816.94	89.99	0.00	1020.61	1012.67	0.196	0.24	0.24	4.386	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	269.00	67.25	269.00	157.43	132.57	0.00	1243.32	909.27	0.216	0.28	0.28	3.693	A
B	714.00	178.50	713.98	208.57	193.00	0.00	1206.80	822.32	0.592	1.43	1.44	7.304	A
C	200.00	50.00	200.00	816.98	90.00	0.00	1020.61	1012.67	0.196	0.24	0.24	4.386	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	269.00	67.25	269.00	157.43	132.57	0.00	1243.32	909.27	0.216	0.28	0.28	3.693	A
B	714.00	178.50	713.99	208.57	193.00	0.00	1206.79	822.32	0.592	1.44	1.44	7.304	A
C	200.00	50.00	200.00	816.99	90.00	0.00	1020.60	1012.67	0.196	0.24	0.24	4.386	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.03	0.27	3.686	A	A
B	20.13	1.34	7.135	A	A
C	3.54	0.24	4.376	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.13	0.28	3.693	A	A
B	21.43	1.43	7.301	A	A
C	3.64	0.24	4.386	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.13	0.28	3.693	A	A
B	21.56	1.44	7.304	A	A
C	3.65	0.24	4.386	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.14	0.28	3.693	A	A
B	21.61	1.44	7.304	A	A
C	3.65	0.24	4.386	A	A

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm A - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
5	Junction 5	Mini-roundabout	A,B,C	5.75	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	William Hunter Way	
B	B	Ongar Road N	
C	C	Ongar Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	7.50	7.50	8.60	2.48	9.25	5.50	0.00	✓
B	3.60	3.60	5.00	9.89	15.65	19.20	0.00	✓
C	3.20	3.20	7.00	6.53	13.59	7.00	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	Zebra
B	None
C	None

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
A	2.90	3.00	✓	Distance			7.50	5.36	7.30	5.21

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.620	1325.526
B		(calculated)	(calculated)	0.837	1368.326
C		(calculated)	(calculated)	0.581	1072.916

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	587.00	100.000
B	FLAT	✓	537.00	100.000
C	FLAT		200.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	FLAT	0.00
B	-	-
C	-	-

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.000	241.000	346.000
	B	87.000	0.000	450.000
	C	531.000	747.000	0.000

Turning Proportions (PCU) - Junction 5 (for whole period)

		To		
		A	B	C
From	A	0.00	0.41	0.59
	B	0.16	0.00	0.84
	C	0.42	0.58	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 5 (for whole period)

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

Heavy Vehicle Percentages - Junction 5 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.47	5.40	0.88	A	587.00	587.00	52.03	5.32	0.87	52.05	5.32
B	0.50	6.64	0.99	A	537.00	537.00	58.23	6.51	0.97	58.26	6.51
C	0.20	4.38	0.24	A	200.00	200.00	14.45	4.33	0.24	14.45	4.34

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	587.00	146.75	583.52	169.07	116.34	0.00	1253.38	967.04	0.468	0.00	0.87	5.346	A
B	537.00	134.25	533.10	355.91	343.95	0.00	1080.46	891.26	0.497	0.00	0.97	6.532	A
C	200.00	50.00	199.03	790.68	86.37	0.00	1022.71	988.99	0.196	0.00	0.24	4.367	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	587.00	146.75	586.98	170.09	116.90	0.00	1253.03	967.04	0.468	0.87	0.88	5.404	A
B	537.00	134.25	536.96	357.89	345.99	0.00	1078.75	891.26	0.498	0.97	0.98	6.644	A
C	200.00	50.00	200.00	795.96	86.99	0.00	1022.35	988.99	0.196	0.24	0.24	4.377	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	587.00	146.75	586.99	170.10	116.90	0.00	1253.03	967.04	0.468	0.88	0.88	5.404	A
B	537.00	134.25	536.99	357.90	346.00	0.00	1078.74	891.26	0.498	0.98	0.99	6.644	A
C	200.00	50.00	200.00	795.99	87.00	0.00	1022.35	988.99	0.196	0.24	0.24	4.377	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	587.00	146.75	587.00	170.10	116.90	0.00	1253.03	967.04	0.468	0.88	0.88	5.404	A
B	537.00	134.25	536.99	357.90	346.00	0.00	1078.74	891.26	0.498	0.99	0.99	6.644	A
C	200.00	50.00	200.00	795.99	87.00	0.00	1022.35	988.99	0.196	0.24	0.24	4.377	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.58	0.84	5.346	A	A
B	13.95	0.93	6.532	A	A
C	3.54	0.24	4.367	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.11	0.87	5.404	A	A
B	14.70	0.98	6.644	A	A
C	3.63	0.24	4.377	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.16	0.88	5.404	A	A
B	14.77	0.98	6.644	A	A
C	3.64	0.24	4.377	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.18	0.88	5.404	A	A
B	14.80	0.99	6.644	A	A
C	3.64	0.24	4.377	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 06 A128 - A1028 - A128 - A1023 Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 16:02:11

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Junction 6a - Arm C	0.26	4.74	0.21	A	0.26	4.73	0.21	A
Junction 6a - Arm D	4.40	18.06	0.82	C	2.36	11.00	0.70	B
Junction 6a - Arm E	0.23	4.14	0.19	A	0.24	4.39	0.20	A
Junction 6b - Arm E	0.11	4.12	0.10	A	0.11	4.02	0.10	A
Junction 6b - Arm F	3.18	15.10	0.76	C	5.12	22.37	0.84	C
Junction 6b - Arm G	2.28	19.59	0.70	C	1.94	19.44	0.66	C
	A1 - Option 1							
Junction 6a - Arm C	0.26	4.72	0.21	A	0.26	4.71	0.21	A
Junction 6a - Arm D	5.26	21.00	0.84	C	2.89	12.79	0.75	B
Junction 6a - Arm E	0.23	4.18	0.19	A	0.25	4.46	0.20	A
Junction 6b - Arm E	0.12	4.15	0.10	A	0.11	4.05	0.10	A
Junction 6b - Arm F	5.35	23.19	0.85	C	12.00	48.47	0.93	E
Junction 6b - Arm G	3.95	32.56	0.81	D	3.24	31.11	0.77	D
	A1 - Option 2							
Junction 6a - Arm C	0.26	4.72	0.21	A	0.26	4.71	0.21	A
Junction 6a - Arm D	5.26	21.02	0.85	C	2.90	12.82	0.75	B
Junction 6a - Arm E	0.23	4.18	0.19	A	0.25	4.46	0.20	A
Junction 6b - Arm E	0.12	4.15	0.10	A	0.11	4.06	0.10	A
Junction 6b - Arm F	5.39	23.33	0.85	C	11.84	47.86	0.93	E
Junction 6b - Arm G	3.97	32.74	0.81	D	3.34	32.06	0.78	D
	A1 - Option 3							
Junction 6a - Arm C	0.26	4.73	0.21	A	0.26	4.70	0.21	A
Junction 6a - Arm D	7.57	29.23	0.89	D	3.16	13.69	0.76	B
Junction 6a - Arm E	0.24	4.25	0.19	A	0.25	4.50	0.20	A
Junction 6b - Arm E	0.12	4.15	0.10	A	0.11	4.05	0.10	A
Junction 6b - Arm F	4.35	19.40	0.82	C	31.12	113.75	1.00	F
Junction 6b - Arm G	3.94	31.39	0.80	D	5.41	51.43	0.86	F
	A1 - Option 4							
Junction 6a - Arm C	0.26	4.73	0.21	A	0.26	4.71	0.21	A
Junction 6a - Arm D	7.55	29.08	0.89	D	3.11	13.53	0.76	B
Junction 6a - Arm E	0.24	4.25	0.19	A	0.25	4.48	0.20	A
Junction 6b - Arm E	0.12	4.15	0.10	A	0.11	4.06	0.10	A
Junction 6b - Arm F	5.58	24.05	0.85	C	17.36	67.96	0.96	F
Junction 6b - Arm G	4.74	38.21	0.84	E	4.80	44.67	0.84	E

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 16:02:07

File summary

Title	Ongar Rd - Shenfield Rd - Ingrave Rd - High St
Location	Brentwood
Site Number	06a, 06b
Date	23/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
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			N/A	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	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	13.86	B
6b	6b	Junction 6b	Mini-roundabout	E,F,G	15.72	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	**C**	C	Ongar Road N	
6a	**D**	D	Shenfield Road	
6a	**E**	E	A1023 High Street	
6b	**E**	E	A1023 High Street	
6b	**F**	F	Ingrave Road	
6b	**G**	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	**C**	0.00	99999.00		0.00
6a	**D**	0.00	99999.00		0.00
6a	**E**	0.00	99999.00		0.00
6b	**E**	0.00	99999.00		0.00
6b	**F**	0.00	99999.00		0.00
6b	**G**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	**C**	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	**D**	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	**E**	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	**E**	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	**F**	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	**G**	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	897.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	771.00	100.000
6b	G	FLAT	✓	426.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	223.000	489.000
	D	314.000	0.000	583.000
	E	423.000	532.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.31	0.69
	D	0.35	0.00	0.65
	E	0.44	0.56	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	716.000	355.000
	F	648.000	0.000	123.000
	G	308.000	118.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.67	0.33
	F	0.84	0.00	0.16
	G	0.72	0.28	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.74	0.26	A	200.00	200.00	15.62	4.69	0.26	15.63	4.69
6a	D	0.82	18.06	4.40	C	897.00	897.00	246.82	16.51	4.11	247.35	16.55
6a	E	0.19	4.14	0.23	A	200.00	200.00	13.65	4.09	0.23	13.65	4.10
6b	E	0.10	4.12	0.11	A	100.00	100.00	6.80	4.08	0.11	6.80	4.08
6b	F	0.76	15.10	3.18	C	771.00	771.00	181.65	14.14	3.03	181.95	14.16
6b	G	0.70	19.59	2.28	C	426.00	426.00	128.59	18.11	2.14	128.84	18.15

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.95	396.45	110.91	0.00	960.21	644.00	0.208	0.00	0.26	4.724	A
6a	D	897.00	224.25	880.63	173.22	136.64	0.00	1095.86	865.62	0.819	0.00	4.09	15.713	C
6a	E	200.00	50.00	199.09	709.00	308.27	0.00	1073.10	1076.22	0.186	0.00	0.23	4.114	A
6b	E	100.00	25.00	99.55	939.71	115.66	0.00	975.19	954.38	0.103	0.00	0.11	4.109	A
6b	F	771.00	192.75	758.87	182.21	33.00	0.00	1009.03	860.02	0.764	0.00	3.03	13.796	B
6b	G	426.00	106.50	417.57	154.06	637.80	0.00	615.65	562.82	0.692	0.00	2.11	17.509	C

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	402.30	111.41	0.00	959.88	644.00	0.208	0.26	0.26	4.737	A
6a	D	897.00	224.25	896.20	174.05	137.36	0.00	1095.32	865.62	0.819	4.09	4.29	17.883	C
6a	E	200.00	50.00	199.99	719.84	313.72	0.00	1069.87	1076.22	0.187	0.23	0.23	4.138	A
6b	E	100.00	25.00	100.00	955.33	117.87	0.00	974.05	954.38	0.103	0.11	0.11	4.118	A
6b	F	771.00	192.75	770.61	184.72	33.15	0.00	1008.95	860.02	0.764	3.03	3.13	15.039	C
6b	G	426.00	106.50	425.52	156.08	647.67	0.00	609.52	562.82	0.699	2.11	2.23	19.459	C

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	402.48	111.41	0.00	959.88	644.00	0.208	0.26	0.26	4.737	A
6a	D	897.00	224.25	896.71	174.05	137.36	0.00	1095.31	865.62	0.819	4.29	4.36	18.016	C
6a	E	200.00	50.00	200.00	720.17	313.90	0.00	1069.76	1076.22	0.187	0.23	0.23	4.138	A
6b	E	100.00	25.00	100.00	955.78	117.96	0.00	974.00	954.38	0.103	0.11	0.11	4.118	A
6b	F	771.00	192.75	770.86	184.81	33.15	0.00	1008.95	860.02	0.764	3.13	3.17	15.080	C
6b	G	426.00	106.50	425.86	156.12	647.88	0.00	609.39	562.82	0.699	2.23	2.26	19.559	C

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	402.53	111.41	0.00	959.88	644.00	0.208	0.26	0.26	4.737	A
6a	D	897.00	224.25	896.85	174.05	137.36	0.00	1095.31	865.62	0.819	4.36	4.40	18.058	C
6a	E	200.00	50.00	200.00	720.26	313.95	0.00	1069.73	1076.22	0.187	0.23	0.23	4.138	A
6b	E	100.00	25.00	100.00	955.89	117.98	0.00	973.99	954.38	0.103	0.11	0.11	4.118	A
6b	F	771.00	192.75	770.93	184.84	33.15	0.00	1008.95	860.02	0.764	3.17	3.18	15.095	C
6b	G	426.00	106.50	425.93	156.14	647.94	0.00	609.35	562.82	0.699	2.26	2.28	19.589	C

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.82	0.25	4.724	A	A
6a	D	52.88	3.53	15.713	C	B
6a	E	3.34	0.22	4.114	A	A
6b	E	1.67	0.11	4.109	A	A
6b	F	40.36	2.69	13.796	B	B
6b	G	28.06	1.87	17.509	C	B

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.737	A	A
6a	D	63.18	4.21	17.883	C	B
6a	E	3.43	0.23	4.138	A	A
6b	E	1.71	0.11	4.118	A	A
6b	F	46.39	3.09	15.039	C	B
6b	G	32.76	2.18	19.459	C	B

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.94	0.26	4.737	A	A
6a	D	64.98	4.33	18.016	C	B
6a	E	3.44	0.23	4.138	A	A
6b	E	1.71	0.11	4.118	A	A
6b	F	47.26	3.15	15.080	C	B
6b	G	33.71	2.25	19.559	C	B

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.94	0.26	4.737	A	A
6a	D	65.78	4.39	18.058	C	B
6a	E	3.44	0.23	4.138	A	A
6b	E	1.71	0.11	4.118	A	A
6b	F	47.64	3.18	15.095	C	B
6b	G	34.07	2.27	19.589	C	B

(Default Analysis Set) - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	8.81	A
6b	6b	Junction 6b	Mini-roundabout	E,F,G	20.16	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	C	C	Ongar Road N	
6a	D	D	Shenfield Road	
6a	E	E	A1023 High Street	
6b	E	E	A1023 High Street	
6b	F	F	Ingrave Road	
6b	G	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	C	0.00	99999.00		0.00
6a	D	0.00	99999.00		0.00
6a	E	0.00	99999.00		0.00
6b	E	0.00	99999.00		0.00
6b	F	0.00	99999.00		0.00
6b	G	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	C	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	D	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	E	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	E	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	F	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	G	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	779.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	847.00	100.000
6b	G	FLAT	✓	365.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	274.000	437.000
	D	397.000	0.000	382.000
	E	469.000	563.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.39	0.61
	D	0.51	0.00	0.49
	E	0.45	0.55	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	507.000	312.000
	F	744.000	0.000	103.000
	G	288.000	77.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.62	0.38
	F	0.88	0.00	0.12
	G	0.79	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.73	0.26	A	200.00	200.00	15.59	4.68	0.26	15.60	4.68
6a	D	0.70	11.00	2.36	B	779.00	779.00	136.52	10.52	2.28	136.67	10.53
6a	E	0.20	4.39	0.24	A	200.00	200.00	14.46	4.34	0.24	14.47	4.34
6b	E	0.10	4.02	0.11	A	100.00	100.00	6.64	3.99	0.11	6.65	3.99
6b	F	0.84	22.37	5.12	C	847.00	847.00	282.51	20.01	4.71	283.29	20.07
6b	G	0.66	19.44	1.94	C	365.00	365.00	109.23	17.95	1.82	109.43	17.99

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	482.79	108.58	0.00	961.71	682.75	0.208	0.00	0.26	4.714	A
6a	D	779.00	194.75	769.86	185.25	122.28	0.00	1106.67	882.69	0.704	0.00	2.29	10.426	B
6a	E	200.00	50.00	199.03	499.80	392.34	0.00	1023.24	989.14	0.195	0.00	0.24	4.364	A
6b	E	100.00	25.00	99.56	1010.06	75.50	0.00	995.97	974.11	0.100	0.00	0.11	4.014	A
6b	F	847.00	211.75	828.39	137.13	37.93	0.00	1006.44	831.23	0.842	0.00	4.65	18.640	C
6b	G	365.00	91.25	357.91	138.66	727.65	0.00	559.82	558.26	0.652	0.00	1.77	17.282	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	487.79	109.11	0.00	961.38	682.75	0.208	0.26	0.26	4.727	A
6a	D	779.00	194.75	778.81	186.18	122.92	0.00	1106.19	882.69	0.704	2.29	2.33	10.980	B
6a	E	200.00	50.00	199.99	504.83	396.90	0.00	1020.54	989.14	0.196	0.24	0.24	4.387	A
6b	E	100.00	25.00	100.00	1030.59	76.90	0.00	995.24	974.11	0.100	0.11	0.11	4.020	A
6b	F	847.00	211.75	845.83	138.80	38.09	0.00	1006.35	831.23	0.842	4.65	4.95	22.033	C
6b	G	365.00	91.25	364.52	140.95	742.97	0.00	550.30	558.26	0.663	1.77	1.89	19.283	C

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	487.86	109.11	0.00	961.37	682.75	0.208	0.26	0.26	4.727	A
6a	D	779.00	194.75	778.94	186.18	122.92	0.00	1106.19	882.69	0.704	2.33	2.35	10.991	B
6a	E	200.00	50.00	200.00	504.89	396.97	0.00	1020.50	989.14	0.196	0.24	0.24	4.387	A
6b	E	100.00	25.00	100.00	1031.50	76.97	0.00	995.21	974.11	0.100	0.11	0.11	4.021	A
6b	F	847.00	211.75	846.55	138.88	38.10	0.00	1006.35	831.23	0.842	4.95	5.06	22.278	C
6b	G	365.00	91.25	364.87	141.04	743.60	0.00	549.90	558.26	0.664	1.89	1.92	19.410	C

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	487.87	109.11	0.00	961.37	682.75	0.208	0.26	0.26	4.727	A
6a	D	779.00	194.75	778.97	186.18	122.93	0.00	1106.19	882.69	0.704	2.35	2.36	10.995	B
6a	E	200.00	50.00	200.00	504.91	396.98	0.00	1020.49	989.14	0.196	0.24	0.24	4.387	A
6b	E	100.00	25.00	100.00	1031.74	76.99	0.00	995.20	974.11	0.100	0.11	0.11	4.021	A
6b	F	847.00	211.75	846.76	138.89	38.10	0.00	1006.35	831.23	0.842	5.06	5.12	22.372	C
6b	G	365.00	91.25	364.94	141.07	743.79	0.00	549.79	558.26	0.664	1.92	1.94	19.445	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.81	0.25	4.714	A	A
6a	D	31.39	2.09	10.426	B	B
6a	E	3.53	0.24	4.364	A	A
6b	E	1.63	0.11	4.014	A	A
6b	F	58.59	3.91	18.640	C	B
6b	G	23.80	1.59	17.282	C	B

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.727	A	A
6a	D	34.71	2.31	10.980	B	B
6a	E	3.64	0.24	4.387	A	A
6b	E	1.67	0.11	4.020	A	A
6b	F	72.41	4.83	22.033	C	C
6b	G	27.77	1.85	19.283	C	B

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.727	A	A
6a	D	35.12	2.34	10.991	B	B
6a	E	3.65	0.24	4.387	A	A
6b	E	1.67	0.11	4.021	A	A
6b	F	75.13	5.01	22.278	C	C
6b	G	28.67	1.91	19.410	C	B

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.727	A	A
6a	D	35.29	2.35	10.995	B	B
6a	E	3.65	0.24	4.387	A	A
6b	E	1.67	0.11	4.021	A	A
6b	F	76.37	5.09	22.372	C	C
6b	G	28.99	1.93	19.445	C	B

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	16.01	C
6b	6b	Junction 6b	Mini-roundabout	E,F,G	24.84	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	**C**	C	Ongar Road N	
6a	**D**	D	Shenfield Road	
6a	**E**	E	A1023 High Street	
6b	**E**	E	A1023 High Street	
6b	**F**	F	Ingrave Road	
6b	**G**	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	**C**	0.00	99999.00		0.00
6a	**D**	0.00	99999.00		0.00
6a	**E**	0.00	99999.00		0.00
6b	**E**	0.00	99999.00		0.00
6b	**F**	0.00	99999.00		0.00
6b	**G**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	**C**	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	**D**	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	**E**	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	**E**	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	**F**	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	**G**	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	**C**	Puffin
6a	**D**	Puffin
6a	**E**	None
6b	**E**	None
6b	**F**	Puffin
6b	**G**	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	926.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	856.00	100.000
6b	G	FLAT	✓	452.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	244.000	526.000
	D	328.000	0.000	598.000
	E	486.000	563.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.32	0.68
	D	0.35	0.00	0.65
	E	0.46	0.54	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	764.000	360.000
	F	726.000	0.000	130.000
	G	322.000	130.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.68	0.32
	F	0.85	0.00	0.15
	G	0.71	0.29	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.72	0.26	A	200.00	200.00	15.57	4.67	0.26	15.57	4.67
6a	D	0.84	21.00	5.26	C	926.00	926.00	290.57	18.83	4.84	291.33	18.88
6a	E	0.19	4.18	0.23	A	200.00	200.00	13.78	4.13	0.23	13.78	4.13
6b	E	0.10	4.15	0.12	A	100.00	100.00	6.85	4.11	0.11	6.85	4.11
6b	F	0.85	23.19	5.35	C	856.00	856.00	294.32	20.63	4.91	295.17	20.69
6b	G	0.81	32.56	3.95	D	452.00	452.00	211.12	28.02	3.52	211.95	28.14

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	413.45	106.85	0.00	962.84	658.51	0.208	0.00	0.26	4.707	A
6a	D	926.00	231.50	906.86	169.89	135.91	0.00	1096.40	859.94	0.845	0.00	4.78	17.548	C
6a	E	200.00	50.00	199.08	721.55	321.22	0.00	1065.42	1075.28	0.188	0.00	0.23	4.151	A
6b	E	100.00	25.00	99.54	1022.14	126.19	0.00	969.75	952.37	0.103	0.00	0.11	4.135	A
6b	F	856.00	214.00	836.65	193.85	31.88	0.00	1009.62	865.97	0.848	0.00	4.84	19.102	C
6b	G	452.00	113.00	438.74	158.94	709.59	0.00	571.04	555.59	0.792	0.00	3.32	25.176	D

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.23	107.34	0.00	962.52	658.51	0.208	0.26	0.26	4.720	A
6a	D	926.00	231.50	924.81	170.71	136.62	0.00	1095.87	859.94	0.845	4.78	5.08	20.691	C
6a	E	200.00	50.00	199.99	733.85	327.58	0.00	1061.65	1075.28	0.188	0.23	0.23	4.177	A
6b	E	100.00	25.00	100.00	1045.71	129.52	0.00	968.03	952.37	0.103	0.11	0.11	4.147	A
6b	F	856.00	214.00	854.71	197.49	32.03	0.00	1009.54	865.97	0.848	4.84	5.16	22.788	C
6b	G	452.00	113.00	450.33	161.83	724.90	0.00	561.52	555.59	0.805	3.32	3.73	31.497	D

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.50	107.34	0.00	962.52	658.51	0.208	0.26	0.26	4.720	A
6a	D	926.00	231.50	925.55	170.72	136.62	0.00	1095.87	859.94	0.845	5.08	5.20	20.914	C
6a	E	200.00	50.00	200.00	734.33	327.84	0.00	1061.50	1075.28	0.188	0.23	0.23	4.178	A
6b	E	100.00	25.00	100.00	1047.17	129.84	0.00	967.86	952.37	0.103	0.11	0.12	4.147	A
6b	F	856.00	214.00	855.50	197.81	32.03	0.00	1009.54	865.97	0.848	5.16	5.29	23.075	C
6b	G	452.00	113.00	451.44	161.95	725.57	0.00	561.11	555.59	0.806	3.73	3.88	32.288	D

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.57	107.34	0.00	962.52	658.51	0.208	0.26	0.26	4.720	A
6a	D	926.00	231.50	925.76	170.72	136.62	0.00	1095.87	859.94	0.845	5.20	5.26	20.999	C
6a	E	200.00	50.00	200.00	734.47	327.92	0.00	1061.45	1075.28	0.188	0.23	0.23	4.178	A
6b	E	100.00	25.00	100.00	1047.57	129.92	0.00	967.82	952.37	0.103	0.12	0.12	4.148	A
6b	F	856.00	214.00	855.73	197.89	32.03	0.00	1009.54	865.97	0.848	5.29	5.35	23.187	C
6b	G	452.00	113.00	451.72	161.99	725.77	0.00	560.98	555.59	0.806	3.88	3.95	32.557	D

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.80	0.25	4.707	A	A
6a	D	60.49	4.03	17.548	C	B
6a	E	3.37	0.22	4.151	A	A
6b	E	1.68	0.11	4.135	A	A
6b	F	60.57	4.04	19.102	C	B
6b	G	41.56	2.77	25.176	D	C

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.720	A	A
6a	D	74.45	4.96	20.691	C	C
6a	E	3.46	0.23	4.177	A	A
6b	E	1.72	0.11	4.147	A	A
6b	F	75.45	5.03	22.788	C	C
6b	G	53.64	3.58	31.497	D	C

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.720	A	A
6a	D	77.20	5.15	20.914	C	C
6a	E	3.47	0.23	4.178	A	A
6b	E	1.72	0.11	4.147	A	A
6b	F	78.46	5.23	23.075	C	C
6b	G	57.22	3.81	32.288	D	C

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.720	A	A
6a	D	78.44	5.23	20.999	C	C
6a	E	3.48	0.23	4.178	A	A
6b	E	1.73	0.12	4.148	A	A
6b	F	79.84	5.32	23.187	C	C
6b	G	58.71	3.91	32.557	D	C

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	10.11	B
6b	6b	Junction 6b	Mini-roundabout	E,F,G	40.65	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	C	C	Ongar Road N	
6a	D	D	Shenfield Road	
6a	E	E	A1023 High Street	
6b	E	E	A1023 High Street	
6b	F	F	Ingrave Road	
6b	G	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	C	0.00	99999.00		0.00
6a	D	0.00	99999.00		0.00
6a	E	0.00	99999.00		0.00
6b	E	0.00	99999.00		0.00
6b	F	0.00	99999.00		0.00
6b	G	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	C	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	D	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	E	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	E	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	F	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	G	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	824.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	942.00	100.000
6b	G	FLAT	✓	388.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	292.000	482.000
	D	421.000	0.000	403.000
	E	527.000	593.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.38	0.62
	D	0.51	0.00	0.49
	E	0.47	0.53	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	568.000	318.000
	F	822.000	0.000	120.000
	G	298.000	90.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.64	0.36
	F	0.87	0.00	0.13
	G	0.77	0.23	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.71	0.26	A	200.00	200.00	15.55	4.67	0.26	15.55	4.67
6a	D	0.75	12.79	2.89	B	824.00	824.00	166.20	12.10	2.77	166.43	12.12
6a	E	0.20	4.46	0.25	A	200.00	200.00	14.71	4.41	0.25	14.71	4.41
6b	E	0.10	4.05	0.11	A	100.00	100.00	6.69	4.02	0.11	6.69	4.02
6b	F	0.93	48.47	12.00	E	942.00	942.00	590.48	37.61	9.84	594.76	37.88
6b	G	0.77	31.11	3.24	D	388.00	388.00	172.06	26.61	2.87	172.69	26.70

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	508.97	105.37	0.00	963.79	692.39	0.208	0.00	0.26	4.701	A
6a	D	824.00	206.00	812.89	180.43	123.90	0.00	1105.45	874.00	0.745	0.00	2.78	11.895	B
6a	E	200.00	50.00	199.02	521.46	415.32	0.00	1009.61	991.10	0.198	0.00	0.25	4.435	A
6b	E	100.00	25.00	99.55	1080.69	87.55	0.00	989.73	968.49	0.101	0.00	0.11	4.042	A
6b	F	942.00	235.50	906.24	151.37	35.73	0.00	1007.59	843.58	0.935	0.00	8.94	29.250	D
6b	G	388.00	97.00	377.45	151.18	790.79	0.00	520.58	554.56	0.745	0.00	2.64	23.686	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	514.95	105.89	0.00	963.46	692.39	0.208	0.26	0.26	4.714	A
6a	D	824.00	206.00	823.70	181.34	124.55	0.00	1104.97	874.00	0.746	2.78	2.85	12.762	B
6a	E	200.00	50.00	199.99	527.40	420.85	0.00	1006.34	991.10	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1112.93	89.63	0.00	988.66	968.49	0.101	0.11	0.11	4.050	A
6b	F	942.00	235.50	935.31	153.74	35.89	0.00	1007.51	843.58	0.935	8.94	10.61	43.352	E
6b	G	388.00	97.00	386.40	155.04	816.16	0.00	504.81	554.56	0.769	2.64	3.04	29.734	D

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	515.05	105.89	0.00	963.46	692.39	0.208	0.26	0.26	4.714	A
6a	D	824.00	206.00	823.90	181.34	124.55	0.00	1104.97	874.00	0.746	2.85	2.88	12.787	B
6a	E	200.00	50.00	200.00	527.50	420.95	0.00	1006.28	991.10	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1116.61	89.88	0.00	988.53	968.49	0.101	0.11	0.11	4.051	A
6b	F	942.00	235.50	938.58	153.98	35.89	0.00	1007.51	843.58	0.935	10.61	11.47	46.681	E
6b	G	388.00	97.00	387.47	155.46	819.02	0.00	503.04	554.56	0.771	3.04	3.17	30.743	D

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	515.08	105.89	0.00	963.46	692.39	0.208	0.26	0.26	4.714	A
6a	D	824.00	206.00	823.95	181.34	124.55	0.00	1104.97	874.00	0.746	2.88	2.89	12.794	B
6a	E	200.00	50.00	200.00	527.52	420.97	0.00	1006.26	991.10	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1117.94	89.94	0.00	988.50	968.49	0.101	0.11	0.11	4.051	A
6b	F	942.00	235.50	939.88	154.05	35.89	0.00	1007.51	843.58	0.935	11.47	12.00	48.468	E
6b	G	388.00	97.00	387.73	155.62	820.15	0.00	502.34	554.56	0.772	3.17	3.24	31.113	D

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.80	0.25	4.701	A	A
6a	D	37.53	2.50	11.895	B	B
6a	E	3.59	0.24	4.435	A	A
6b	E	1.64	0.11	4.042	A	A
6b	F	99.68	6.65	29.250	D	C
6b	G	33.78	2.25	23.686	C	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.91	0.26	4.714	A	A
6a	D	42.36	2.82	12.762	B	B
6a	E	3.70	0.25	4.464	A	A
6b	E	1.68	0.11	4.050	A	A
6b	F	148.34	9.89	43.352	E	D
6b	G	43.43	2.90	29.734	D	C

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.714	A	A
6a	D	43.02	2.87	12.787	B	B
6a	E	3.71	0.25	4.464	A	A
6b	E	1.68	0.11	4.051	A	A
6b	F	166.18	11.08	46.681	E	D
6b	G	46.73	3.12	30.743	D	C

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.714	A	A
6a	D	43.30	2.89	12.794	B	B
6a	E	3.71	0.25	4.464	A	A
6b	E	1.69	0.11	4.051	A	A
6b	F	176.27	11.75	48.468	E	D
6b	G	48.12	3.21	31.113	D	C

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	16.02	C
6b	6b	Junction 6b	Mini-roundabout	E,F,G	24.99	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	**C**	C	Ongar Road N	
6a	**D**	D	Shenfield Road	
6a	**E**	E	A1023 High Street	
6b	**E**	E	A1023 High Street	
6b	**F**	F	Ingrave Road	
6b	**G**	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	**C**	0.00	99999.00		0.00
6a	**D**	0.00	99999.00		0.00
6a	**E**	0.00	99999.00		0.00
6b	**E**	0.00	99999.00		0.00
6b	**F**	0.00	99999.00		0.00
6b	**G**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	**C**	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	**D**	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	**E**	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	**E**	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	**F**	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	**G**	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	**C**	Puffin
6a	**D**	Puffin
6a	**E**	None
6b	**E**	None
6b	**F**	Puffin
6b	**G**	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	926.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	857.00	100.000
6b	G	FLAT	✓	452.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	243.000	526.000
	D	328.000	0.000	598.000
	E	488.000	561.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.32	0.68
	D	0.35	0.00	0.65
	E	0.47	0.53	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	764.000	360.000
	F	727.000	0.000	130.000
	G	322.000	130.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.68	0.32
	F	0.85	0.00	0.15
	G	0.71	0.29	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.72	0.26	A	200.00	200.00	15.57	4.67	0.26	15.57	4.67
6a	D	0.85	21.02	5.26	C	926.00	926.00	290.77	18.84	4.85	291.53	18.89
6a	E	0.19	4.18	0.23	A	200.00	200.00	13.78	4.13	0.23	13.78	4.13
6b	E	0.10	4.15	0.12	A	100.00	100.00	6.85	4.11	0.11	6.85	4.11
6b	F	0.85	23.33	5.39	C	857.00	857.00	296.25	20.74	4.94	297.11	20.80
6b	G	0.81	32.74	3.97	D	452.00	452.00	212.06	28.15	3.53	212.90	28.26

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	413.83	106.47	0.00	963.08	659.76	0.208	0.00	0.26	4.706	A
6a	D	926.00	231.50	906.85	169.34	136.09	0.00	1096.27	858.86	0.845	0.00	4.79	17.557	C
6a	E	200.00	50.00	199.08	721.72	321.22	0.00	1065.42	1075.50	0.188	0.00	0.23	4.151	A
6b	E	100.00	25.00	99.54	1023.00	126.17	0.00	969.76	952.38	0.103	0.00	0.11	4.135	A
6b	F	857.00	214.25	837.53	193.83	31.88	0.00	1009.62	865.97	0.849	0.00	4.87	19.183	C
6b	G	452.00	113.00	438.69	158.93	710.49	0.00	570.48	555.49	0.792	0.00	3.33	25.261	D

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.61	106.96	0.00	962.77	659.76	0.208	0.26	0.26	4.719	A
6a	D	926.00	231.50	924.80	170.15	136.80	0.00	1095.74	858.86	0.845	4.79	5.09	20.707	C
6a	E	200.00	50.00	199.99	734.03	327.58	0.00	1061.65	1075.50	0.188	0.23	0.23	4.177	A
6b	E	100.00	25.00	100.00	1046.68	129.51	0.00	968.03	952.38	0.103	0.11	0.11	4.147	A
6b	F	857.00	214.25	855.69	197.48	32.03	0.00	1009.54	865.97	0.849	4.87	5.20	22.924	C
6b	G	452.00	113.00	450.31	161.83	725.89	0.00	560.91	555.49	0.806	3.33	3.75	31.652	D

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.88	106.96	0.00	962.77	659.76	0.208	0.26	0.26	4.719	A
6a	D	926.00	231.50	925.54	170.16	136.80	0.00	1095.74	858.86	0.845	5.09	5.20	20.929	C
6a	E	200.00	50.00	200.00	734.51	327.84	0.00	1061.50	1075.50	0.188	0.23	0.23	4.178	A
6b	E	100.00	25.00	100.00	1048.16	129.84	0.00	967.86	952.38	0.103	0.11	0.12	4.147	A
6b	F	857.00	214.25	856.49	197.81	32.03	0.00	1009.54	865.97	0.849	5.20	5.32	23.217	C
6b	G	452.00	113.00	451.43	161.95	726.57	0.00	560.49	555.49	0.806	3.75	3.89	32.458	D

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	420.96	106.96	0.00	962.77	659.76	0.208	0.26	0.26	4.719	A
6a	D	926.00	231.50	925.76	170.16	136.80	0.00	1095.74	858.86	0.845	5.20	5.26	21.016	C
6a	E	200.00	50.00	200.00	734.65	327.91	0.00	1061.45	1075.50	0.188	0.23	0.23	4.178	A
6b	E	100.00	25.00	100.00	1048.56	129.92	0.00	967.82	952.38	0.103	0.12	0.12	4.148	A
6b	F	857.00	214.25	856.73	197.89	32.03	0.00	1009.54	865.97	0.849	5.32	5.39	23.332	C
6b	G	452.00	113.00	451.71	161.99	726.77	0.00	560.37	555.49	0.807	3.89	3.97	32.735	D

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.80	0.25	4.706	A	A
6a	D	60.52	4.03	17.557	C	B
6a	E	3.37	0.22	4.151	A	A
6b	E	1.68	0.11	4.135	A	A
6b	F	60.89	4.06	19.183	C	B
6b	G	41.69	2.78	25.261	D	C

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.91	0.26	4.719	A	A
6a	D	74.50	4.97	20.707	C	C
6a	E	3.46	0.23	4.177	A	A
6b	E	1.72	0.11	4.147	A	A
6b	F	75.94	5.06	22.924	C	C
6b	G	53.87	3.59	31.652	D	C

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.719	A	A
6a	D	77.26	5.15	20.929	C	C
6a	E	3.47	0.23	4.178	A	A
6b	E	1.72	0.11	4.147	A	A
6b	F	79.01	5.27	23.217	C	C
6b	G	57.50	3.83	32.458	D	C

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.719	A	A
6a	D	78.50	5.23	21.016	C	C
6a	E	3.48	0.23	4.178	A	A
6b	E	1.73	0.12	4.148	A	A
6b	F	80.41	5.36	23.332	C	C
6b	G	59.01	3.93	32.735	D	C

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	10.13	B
6b	6b	Junction 6b	Mini-roundabout	E,F,G	40.50	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	C	C	Ongar Road N	
6a	D	D	Shenfield Road	
6a	E	E	A1023 High Street	
6b	E	E	A1023 High Street	
6b	F	F	Ingrave Road	
6b	G	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	C	0.00	99999.00		0.00
6a	D	0.00	99999.00		0.00
6a	E	0.00	99999.00		0.00
6b	E	0.00	99999.00		0.00
6b	F	0.00	99999.00		0.00
6b	G	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	C	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	D	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	E	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	E	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	F	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	G	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	824.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	941.00	100.000
6b	G	FLAT	✓	389.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	291.000	488.000
	D	421.000	0.000	403.000
	E	532.000	591.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.37	0.63
	D	0.51	0.00	0.49
	E	0.47	0.53	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	573.000	317.000
	F	826.000	0.000	115.000
	G	297.000	92.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.64	0.36
	F	0.88	0.00	0.12
	G	0.76	0.24	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.71	0.26	A	200.00	200.00	15.54	4.66	0.26	15.55	4.66
6a	D	0.75	12.82	2.90	B	824.00	824.00	166.51	12.12	2.78	166.74	12.14
6a	E	0.20	4.46	0.25	A	200.00	200.00	14.71	4.41	0.25	14.71	4.41
6b	E	0.10	4.06	0.11	A	100.00	100.00	6.70	4.02	0.11	6.70	4.02
6b	F	0.93	47.86	11.84	E	941.00	941.00	584.01	37.24	9.73	588.18	37.50
6b	G	0.78	32.06	3.34	D	389.00	389.00	176.95	27.29	2.95	177.62	27.40

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	509.59	104.74	0.00	964.20	694.15	0.207	0.00	0.26	4.699	A
6a	D	824.00	206.00	812.87	179.06	124.64	0.00	1104.90	871.23	0.746	0.00	2.78	11.914	B
6a	E	200.00	50.00	199.02	522.19	415.31	0.00	1009.62	991.93	0.198	0.00	0.25	4.435	A
6b	E	100.00	25.00	99.55	1083.63	89.44	0.00	988.76	967.62	0.101	0.00	0.11	4.047	A
6b	F	941.00	235.25	905.55	153.54	35.46	0.00	1007.74	845.14	0.934	0.00	8.86	29.070	D
6b	G	389.00	97.25	378.18	146.13	794.88	0.00	518.04	550.99	0.751	0.00	2.70	24.181	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	515.59	105.25	0.00	963.87	694.15	0.208	0.26	0.26	4.712	A
6a	D	824.00	206.00	823.70	179.96	125.29	0.00	1104.41	871.23	0.746	2.78	2.86	12.787	B
6a	E	200.00	50.00	199.99	528.14	420.85	0.00	1006.34	991.93	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1115.98	91.60	0.00	987.64	967.62	0.101	0.11	0.11	4.055	A
6b	F	941.00	235.25	934.47	155.98	35.62	0.00	1007.65	845.14	0.934	8.86	10.49	42.923	E
6b	G	389.00	97.25	387.31	149.82	820.27	0.00	502.26	550.99	0.775	2.70	3.13	30.573	D

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	515.69	105.25	0.00	963.87	694.15	0.208	0.26	0.26	4.712	A
6a	D	824.00	206.00	823.90	179.96	125.29	0.00	1104.41	871.23	0.746	2.86	2.88	12.812	B
6a	E	200.00	50.00	200.00	528.24	420.95	0.00	1006.28	991.93	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1119.65	91.87	0.00	987.50	967.62	0.101	0.11	0.11	4.056	A
6b	F	941.00	235.25	937.68	156.25	35.62	0.00	1007.65	845.14	0.934	10.49	11.32	46.144	E
6b	G	389.00	97.25	388.43	150.21	823.09	0.00	500.51	550.99	0.777	3.13	3.27	31.660	D

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	515.72	105.25	0.00	963.87	694.15	0.208	0.26	0.26	4.712	A
6a	D	824.00	206.00	823.95	179.96	125.29	0.00	1104.41	871.23	0.746	2.88	2.90	12.820	B
6a	E	200.00	50.00	200.00	528.26	420.97	0.00	1006.26	991.93	0.199	0.25	0.25	4.464	A
6b	E	100.00	25.00	100.00	1120.98	91.93	0.00	987.47	967.62	0.101	0.11	0.11	4.056	A
6b	F	941.00	235.25	938.95	156.31	35.62	0.00	1007.65	845.14	0.934	11.32	11.84	47.857	E
6b	G	389.00	97.25	388.71	150.37	824.20	0.00	499.82	550.99	0.778	3.27	3.34	32.063	D

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.80	0.25	4.699	A	A
6a	D	37.59	2.51	11.914	B	B
6a	E	3.59	0.24	4.435	A	A
6b	E	1.64	0.11	4.047	A	A
6b	F	98.99	6.60	29.070	D	C
6b	G	34.52	2.30	24.181	C	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.91	0.26	4.712	A	A
6a	D	42.44	2.83	12.787	B	B
6a	E	3.70	0.25	4.464	A	A
6b	E	1.68	0.11	4.055	A	A
6b	F	146.83	9.79	42.923	E	D
6b	G	44.64	2.98	30.573	D	C

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.712	A	A
6a	D	43.10	2.87	12.812	B	B
6a	E	3.71	0.25	4.464	A	A
6b	E	1.69	0.11	4.056	A	A
6b	F	164.21	10.95	46.144	E	D
6b	G	48.15	3.21	31.660	D	C

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.712	A	A
6a	D	43.38	2.89	12.820	B	B
6a	E	3.71	0.25	4.464	A	A
6b	E	1.69	0.11	4.056	A	A
6b	F	173.98	11.60	47.857	E	D
6b	G	49.64	3.31	32.063	D	C

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	22.01	C
6b	6b	Junction 6b	Mini-roundabout	E,F,G	22.32	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	**C**	C	Ongar Road N	
6a	**D**	D	Shenfield Road	
6a	**E**	E	A1023 High Street	
6b	**E**	E	A1023 High Street	
6b	**F**	F	Ingrave Road	
6b	**G**	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	**C**	0.00	99999.00		0.00
6a	**D**	0.00	99999.00		0.00
6a	**E**	0.00	99999.00		0.00
6b	**E**	0.00	99999.00		0.00
6b	**F**	0.00	99999.00		0.00
6b	**G**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	**C**	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	**D**	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	**E**	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	**E**	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	**F**	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	**G**	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	**C**	Puffin
6a	**D**	Puffin
6a	**E**	None
6b	**E**	None
6b	**F**	Puffin
6b	**G**	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	971.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	826.00	100.000
6b	G	FLAT	✓	467.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	248.000	631.000
	D	354.000	0.000	617.000
	E	459.000	572.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.28	0.72
	D	0.36	0.00	0.64
	E	0.45	0.55	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	871.000	376.000
	F	695.000	0.000	131.000
	G	336.000	131.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.70	0.30
	F	0.84	0.00	0.16
	G	0.72	0.28	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.73	0.26	A	200.00	200.00	15.62	4.69	0.26	15.62	4.69
6a	D	0.89	29.23	7.57	D	971.00	971.00	402.54	24.87	6.71	404.12	24.97
6a	E	0.19	4.25	0.24	A	200.00	200.00	14.01	4.20	0.23	14.01	4.20
6b	E	0.10	4.15	0.12	A	100.00	100.00	6.85	4.11	0.11	6.85	4.11
6b	F	0.82	19.40	4.35	C	826.00	826.00	243.35	17.68	4.06	243.92	17.72
6b	G	0.80	31.39	3.94	D	467.00	467.00	211.94	27.23	3.53	212.74	27.33

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	433.19	110.44	0.00	960.51	646.96	0.208	0.00	0.26	4.722	A
6a	D	971.00	242.75	945.12	166.57	142.82	0.00	1091.20	848.95	0.890	0.00	6.47	21.809	C
6a	E	200.00	50.00	199.07	743.38	344.56	0.00	1051.58	1072.37	0.190	0.00	0.23	4.218	A
6b	E	100.00	25.00	99.54	1007.75	127.23	0.00	969.21	954.57	0.103	0.00	0.11	4.138	A
6b	F	826.00	206.50	809.86	196.76	30.01	0.00	1010.60	875.02	0.817	0.00	4.03	16.796	C
6b	G	467.00	116.75	453.56	158.45	681.42	0.00	588.54	554.48	0.793	0.00	3.36	24.686	C

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	442.06	110.96	0.00	960.18	646.96	0.208	0.26	0.26	4.735	A
6a	D	971.00	242.75	968.33	167.38	143.57	0.00	1090.64	848.95	0.890	6.47	7.14	28.118	D
6a	E	200.00	50.00	199.99	758.88	353.03	0.00	1046.56	1072.37	0.191	0.23	0.24	4.252	A
6b	E	100.00	25.00	100.00	1029.22	130.57	0.00	967.48	954.57	0.103	0.11	0.11	4.149	A
6b	F	826.00	206.50	825.20	200.42	30.15	0.00	1010.53	875.02	0.817	4.03	4.24	19.211	C
6b	G	467.00	116.75	465.47	161.02	694.32	0.00	580.53	554.48	0.804	3.36	3.74	30.508	D

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	442.63	110.96	0.00	960.18	646.96	0.208	0.26	0.26	4.735	A
6a	D	971.00	242.75	969.88	167.39	143.57	0.00	1090.64	848.95	0.890	7.14	7.42	28.897	D
6a	E	200.00	50.00	200.00	759.86	353.59	0.00	1046.22	1072.37	0.191	0.24	0.24	4.253	A
6b	E	100.00	25.00	100.00	1030.38	130.86	0.00	967.33	954.57	0.103	0.11	0.12	4.150	A
6b	F	826.00	206.50	825.70	200.70	30.15	0.00	1010.53	875.02	0.817	4.24	4.31	19.347	C
6b	G	467.00	116.75	466.48	161.10	694.75	0.00	580.26	554.48	0.805	3.74	3.87	31.166	D

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	442.81	110.96	0.00	960.18	646.96	0.208	0.26	0.26	4.735	A
6a	D	971.00	242.75	970.38	167.39	143.57	0.00	1090.63	848.95	0.890	7.42	7.57	29.232	D
6a	E	200.00	50.00	200.00	760.18	353.77	0.00	1046.11	1072.37	0.191	0.24	0.24	4.254	A
6b	E	100.00	25.00	100.00	1030.68	130.93	0.00	967.30	954.57	0.103	0.12	0.12	4.150	A
6b	F	826.00	206.50	825.84	200.77	30.15	0.00	1010.53	875.02	0.817	4.31	4.35	19.396	C
6b	G	467.00	116.75	466.74	161.13	694.87	0.00	580.19	554.48	0.805	3.87	3.94	31.390	D

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.82	0.25	4.722	A	A
6a	D	77.73	5.18	21.809	C	C
6a	E	3.42	0.23	4.218	A	A
6b	E	1.68	0.11	4.138	A	A
6b	F	51.88	3.46	16.796	C	B
6b	G	42.16	2.81	24.686	C	C

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.735	A	A
6a	D	102.92	6.86	28.118	D	C
6a	E	3.52	0.23	4.252	A	A
6b	E	1.72	0.11	4.149	A	A
6b	F	62.33	4.16	19.211	C	B
6b	G	53.94	3.60	30.508	D	C

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.94	0.26	4.735	A	A
6a	D	109.38	7.29	28.897	D	C
6a	E	3.53	0.24	4.253	A	A
6b	E	1.73	0.12	4.150	A	A
6b	F	64.17	4.28	19.347	C	B
6b	G	57.24	3.82	31.166	D	C

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.94	0.26	4.735	A	A
6a	D	112.50	7.50	29.232	D	C
6a	E	3.54	0.24	4.254	A	A
6b	E	1.73	0.12	4.150	A	A
6b	F	64.98	4.33	19.396	C	B
6b	G	58.60	3.91	31.390	D	C

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	10.77	B
6b	6b	Junction 6b	Mini-roundabout	E,F,G	89.87	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	C	C	Ongar Road N	
6a	D	D	Shenfield Road	
6a	E	E	A1023 High Street	
6b	E	E	A1023 High Street	
6b	F	F	Ingrave Road	
6b	G	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	C	0.00	99999.00		0.00
6a	D	0.00	99999.00		0.00
6a	E	0.00	99999.00		0.00
6b	E	0.00	99999.00		0.00
6b	F	0.00	99999.00		0.00
6b	G	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	C	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	D	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	E	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	E	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	F	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	G	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	843.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	1007.00	100.000
6b	G	FLAT	✓	402.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	297.000	484.000
	D	431.000	0.000	412.000
	E	593.000	612.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.38	0.62
	D	0.51	0.00	0.49
	E	0.49	0.51	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	569.000	326.000
	F	891.000	0.000	116.000
	G	314.000	88.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.64	0.36
	F	0.88	0.00	0.12
	G	0.78	0.22	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.70	0.26	A	200.00	200.00	15.50	4.65	0.26	15.50	4.65
6a	D	0.76	13.69	3.16	B	843.00	843.00	180.93	12.88	3.02	181.21	12.90
6a	E	0.20	4.50	0.25	A	200.00	200.00	14.82	4.45	0.25	14.82	4.45
6b	E	0.10	4.05	0.11	A	100.00	100.00	6.68	4.01	0.11	6.68	4.01
6b	F	1.00	113.75	31.12	F	1007.00	1007.00	1236.07	73.65	20.60	1264.92	75.37
6b	G	0.86	51.43	5.41	F	402.00	402.00	262.68	39.21	4.38	264.56	39.49

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	522.76	101.07	0.00	966.57	705.83	0.207	0.00	0.26	4.684	A
6a	D	843.00	210.75	830.91	176.74	123.30	0.00	1105.90	869.30	0.762	0.00	3.02	12.593	B
6a	E	200.00	50.00	199.01	529.39	424.82	0.00	1003.98	992.34	0.199	0.00	0.25	4.466	A
6b	E	100.00	25.00	99.55	1139.18	84.77	0.00	991.17	972.74	0.101	0.00	0.11	4.036	A
6b	F	1007.00	251.75	945.65	148.06	36.26	0.00	1007.31	840.05	1.000	0.00	15.34	41.857	E
6b	G	402.00	100.50	387.22	145.20	836.72	0.00	492.04	550.10	0.817	0.00	3.69	31.040	D

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	529.23	101.57	0.00	966.25	705.83	0.207	0.26	0.26	4.697	A
6a	D	843.00	210.75	842.63	177.63	123.94	0.00	1105.42	869.30	0.763	3.02	3.11	13.647	B
6a	E	200.00	50.00	199.99	535.76	430.81	0.00	1000.43	992.34	0.200	0.25	0.25	4.497	A
6b	E	100.00	25.00	100.00	1178.76	87.14	0.00	989.95	972.74	0.101	0.11	0.11	4.044	A
6b	F	1007.00	251.75	980.82	150.71	36.42	0.00	1007.23	840.05	1.000	15.34	21.88	78.720	F
6b	G	402.00	100.50	398.06	149.41	867.84	0.00	472.70	550.10	0.850	3.69	4.68	44.852	E

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	529.36	101.58	0.00	966.25	705.83	0.207	0.26	0.26	4.697	A
6a	D	843.00	210.75	842.87	177.63	123.94	0.00	1105.42	869.30	0.763	3.11	3.15	13.682	B
6a	E	200.00	50.00	200.00	535.88	430.93	0.00	1000.35	992.34	0.200	0.25	0.25	4.497	A
6b	E	100.00	25.00	100.00	1185.84	87.61	0.00	989.71	972.74	0.101	0.11	0.11	4.045	A
6b	F	1007.00	251.75	986.94	151.18	36.42	0.00	1007.23	840.05	1.000	21.88	26.90	98.080	F
6b	G	402.00	100.50	400.20	150.11	873.25	0.00	469.34	550.10	0.857	4.68	5.13	49.179	E

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	529.39	101.58	0.00	966.25	705.83	0.207	0.26	0.26	4.697	A
6a	D	843.00	210.75	842.93	177.63	123.94	0.00	1105.42	869.30	0.763	3.15	3.16	13.693	B
6a	E	200.00	50.00	200.00	535.91	430.97	0.00	1000.33	992.34	0.200	0.25	0.25	4.497	A
6b	E	100.00	25.00	100.00	1189.19	87.76	0.00	989.63	972.74	0.101	0.11	0.11	4.046	A
6b	F	1007.00	251.75	990.11	151.33	36.42	0.00	1007.23	840.05	1.000	26.90	31.12	113.746	F
6b	G	402.00	100.50	400.90	150.48	876.05	0.00	467.60	550.10	0.860	5.13	5.41	51.428	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.79	0.25	4.684	A	A
6a	D	40.48	2.70	12.593	B	B
6a	E	3.62	0.24	4.466	A	A
6b	E	1.64	0.11	4.036	A	A
6b	F	151.12	10.07	41.857	E	D
6b	G	44.85	2.99	31.040	D	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.90	0.26	4.697	A	A
6a	D	46.16	3.08	13.647	B	B
6a	E	3.72	0.25	4.497	A	A
6b	E	1.68	0.11	4.044	A	A
6b	F	281.96	18.80	78.720	F	E
6b	G	64.54	4.30	44.852	E	D

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.90	0.26	4.697	A	A
6a	D	46.97	3.13	13.682	B	B
6a	E	3.74	0.25	4.497	A	A
6b	E	1.68	0.11	4.045	A	A
6b	F	367.11	24.47	98.080	F	F
6b	G	74.06	4.94	49.179	E	D

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.91	0.26	4.697	A	A
6a	D	47.32	3.15	13.693	B	B
6a	E	3.74	0.25	4.497	A	A
6b	E	1.68	0.11	4.046	A	A
6b	F	435.89	29.06	113.746	F	F
6b	G	79.24	5.28	51.428	F	D

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	21.92	C
6b	6b	Junction 6b	Mini-roundabout	E,F,G	27.28	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	**C**	C	Ongar Road N	
6a	**D**	D	Shenfield Road	
6a	**E**	E	A1023 High Street	
6b	**E**	E	A1023 High Street	
6b	**F**	F	Ingrave Road	
6b	**G**	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	**C**	0.00	99999.00		0.00
6a	**D**	0.00	99999.00		0.00
6a	**E**	0.00	99999.00		0.00
6b	**E**	0.00	99999.00		0.00
6b	**F**	0.00	99999.00		0.00
6b	**G**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	**C**	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	**D**	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	**E**	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	**E**	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	**F**	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	**G**	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	**C**	Puffin
6a	**D**	Puffin
6a	**E**	None
6b	**E**	None
6b	**F**	Puffin
6b	**G**	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	973.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	862.00	100.000
6b	G	FLAT	✓	466.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	245.000	572.000
	D	354.000	0.000	619.000
	E	481.000	586.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.30	0.70
	D	0.36	0.00	0.64
	E	0.45	0.55	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	815.000	376.000
	F	731.000	0.000	131.000
	G	335.000	131.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.68	0.32
	F	0.85	0.00	0.15
	G	0.72	0.28	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.73	0.26	A	200.00	200.00	15.60	4.68	0.26	15.61	4.68
6a	D	0.89	29.08	7.55	D	973.00	973.00	401.57	24.76	6.69	403.14	24.86
6a	E	0.19	4.25	0.24	A	200.00	200.00	14.01	4.20	0.23	14.01	4.20
6b	E	0.10	4.15	0.12	A	100.00	100.00	6.85	4.11	0.11	6.85	4.11
6b	F	0.85	24.05	5.58	C	862.00	862.00	305.78	21.28	5.10	306.70	21.35
6b	G	0.84	38.21	4.74	E	466.00	466.00	248.19	31.96	4.14	249.40	32.11

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	434.34	109.33	0.00	961.23	651.20	0.208	0.00	0.26	4.717	A
6a	D	973.00	243.25	947.17	168.99	139.29	0.00	1093.86	855.36	0.890	0.00	6.46	21.728	C
6a	E	200.00	50.00	199.07	741.86	344.60	0.00	1051.55	1071.36	0.190	0.00	0.23	4.218	A
6b	E	100.00	25.00	99.54	1037.97	126.69	0.00	969.49	954.38	0.103	0.00	0.11	4.136	A
6b	F	862.00	215.50	841.94	194.81	31.43	0.00	1009.86	867.93	0.854	0.00	5.01	19.587	C
6b	G	466.00	116.50	450.67	159.38	713.99	0.00	568.30	554.61	0.820	0.00	3.83	27.814	D

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	443.19	109.84	0.00	960.90	651.20	0.208	0.26	0.26	4.730	A
6a	D	973.00	243.25	970.36	169.81	140.02	0.00	1093.31	855.36	0.890	6.46	7.12	27.984	D
6a	E	200.00	50.00	199.99	757.34	353.04	0.00	1046.55	1071.36	0.191	0.23	0.24	4.252	A
6b	E	100.00	25.00	100.00	1063.11	130.34	0.00	967.60	954.38	0.103	0.11	0.11	4.149	A
6b	F	862.00	215.50	860.58	198.77	31.57	0.00	1009.78	867.93	0.854	5.01	5.37	23.591	C
6b	G	466.00	116.50	463.66	162.35	729.80	0.00	558.48	554.61	0.834	3.83	4.42	36.372	E

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	443.76	109.84	0.00	960.90	651.20	0.208	0.26	0.26	4.730	A
6a	D	973.00	243.25	971.89	169.81	140.02	0.00	1093.31	855.36	0.890	7.12	7.40	28.750	D
6a	E	200.00	50.00	200.00	758.32	353.60	0.00	1046.22	1071.36	0.191	0.24	0.24	4.253	A
6b	E	100.00	25.00	100.00	1064.91	130.76	0.00	967.38	954.38	0.103	0.11	0.12	4.150	A
6b	F	862.00	215.50	861.44	199.19	31.57	0.00	1009.78	867.93	0.854	5.37	5.51	23.919	C
6b	G	466.00	116.50	465.15	162.49	730.53	0.00	558.03	554.61	0.835	4.42	4.63	37.711	E

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	443.94	109.84	0.00	960.90	651.20	0.208	0.26	0.26	4.730	A
6a	D	973.00	243.25	972.39	169.82	140.02	0.00	1093.31	855.36	0.890	7.40	7.55	29.080	D
6a	E	200.00	50.00	200.00	758.63	353.78	0.00	1046.11	1071.36	0.191	0.24	0.24	4.254	A
6b	E	100.00	25.00	100.00	1065.43	130.88	0.00	967.32	954.38	0.103	0.12	0.12	4.150	A
6b	F	862.00	215.50	861.70	199.31	31.57	0.00	1009.78	867.93	0.854	5.51	5.58	24.052	C
6b	G	466.00	116.50	465.56	162.52	730.75	0.00	557.89	554.61	0.835	4.63	4.74	38.205	E

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.81	0.25	4.717	A	A
6a	D	77.63	5.18	21.728	C	C
6a	E	3.42	0.23	4.218	A	A
6b	E	1.68	0.11	4.136	A	A
6b	F	62.43	4.16	19.587	C	B
6b	G	46.96	3.13	27.814	D	C

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.730	A	A
6a	D	102.68	6.85	27.984	D	C
6a	E	3.52	0.23	4.252	A	A
6b	E	1.72	0.11	4.149	A	A
6b	F	78.38	5.23	23.591	C	C
6b	G	62.84	4.19	36.372	E	D

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.93	0.26	4.730	A	A
6a	D	109.09	7.27	28.750	D	C
6a	E	3.53	0.24	4.253	A	A
6b	E	1.72	0.12	4.150	A	A
6b	F	81.71	5.45	23.919	C	C
6b	G	68.06	4.54	37.711	E	D

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.94	0.26	4.730	A	A
6a	D	112.18	7.48	29.080	D	C
6a	E	3.54	0.24	4.254	A	A
6b	E	1.73	0.12	4.150	A	A
6b	F	83.25	5.55	24.052	C	C
6b	G	70.34	4.69	38.205	E	D

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Junction 6a - Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6a - Arm D - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm F - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Junction 6b - Arm G - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
6a	6a	Junction 6a	Mini-roundabout	C,D,E	10.65	B
6b	6b	Junction 6b	Mini-roundabout	E,F,G	57.21	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
6a	C	C	Ongar Road N	
6a	D	D	Shenfield Road	
6a	E	E	A1023 High Street	
6b	E	E	A1023 High Street	
6b	F	F	Ingrave Road	
6b	G	G	A1023 High Street	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
6a	C	0.00	99999.00		0.00
6a	D	0.00	99999.00		0.00
6a	E	0.00	99999.00		0.00
6b	E	0.00	99999.00		0.00
6b	F	0.00	99999.00		0.00
6b	G	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
6a	C	5.20	5.20	6.90	3.33	13.82	7.00	0.00	
6a	D	6.00	6.00	6.20	3.69	16.94	16.30	0.00	
6a	E	7.40	7.40	7.40	0.00	13.91	7.40	0.00	✓
6b	E	5.80	5.80	5.80	0.00	11.06	10.60	0.00	✓
6b	F	6.00	6.00	6.00	0.00	14.38	10.00	0.00	✓
6b	G	5.00	5.00	5.00	0.00	15.97	13.00	0.00	

Pedestrian Crossings

Junction	Arm	Crossing Type
6a	C	Puffin
6a	D	Puffin
6a	E	None
6b	E	None
6b	F	Puffin
6b	G	Puffin

Pelican/ Puffin Crossings

Junction	Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
6a	C	3.00	2.90	1.00	6.00	6.00	7.00	4.00
6a	D	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	F	3.00	2.90	1.00	6.00	6.00	7.00	3.00
6b	G	3.00	2.90	1.00	6.00	6.00	7.00	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
6a	C		(calculated)	(calculated)	0.647	1031.982
6a	D		(calculated)	(calculated)	0.753	1198.780
6a	E		(calculated)	(calculated)	0.593	1255.923
6b	E		(calculated)	(calculated)	0.517	1035.020
6b	F		(calculated)	(calculated)	0.526	1026.383
6b	G		(calculated)	(calculated)	0.621	1011.993

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
6a	C	FLAT		200.00	100.000
6a	D	FLAT	✓	839.00	100.000
6a	E	FLAT		200.00	100.000
6b	E	FLAT		100.00	100.000
6b	F	FLAT	✓	970.00	100.000
6b	G	FLAT	✓	408.00	100.000

Pedestrian Flows

General Flows Data

Junction	Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
6a	C	FLAT	0.00
6a	D	FLAT	0.00
6a	E	-	-
6b	E	-	-
6b	F	FLAT	0.00
6b	G	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.000	297.000	495.000
	D	426.000	0.000	413.000
	E	554.000	612.000	0.000

Turning Proportions (PCU) - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.00	0.38	0.63
	D	0.51	0.00	0.49
	E	0.48	0.52	0.00

Turning Counts / Proportions (PCU/hr) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.000	582.000	326.000
	F	852.000	0.000	118.000
	G	314.000	94.000	0.000

Turning Proportions (PCU) - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.00	0.64	0.36
	F	0.88	0.00	0.12
	G	0.77	0.23	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 6a (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6a (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 6b (for whole period)

		To		
		E	F	G
From	E	1.000	1.000	1.000
	F	1.000	1.000	1.000
	G	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 6b (for whole period)

		To		
		E	F	G
From	E	0.0	0.0	0.0
	F	0.0	0.0	0.0
	G	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
6a	C	0.21	4.71	0.26	A	200.00	200.00	15.54	4.66	0.26	15.54	4.66
6a	D	0.76	13.53	3.11	B	839.00	839.00	178.11	12.74	2.97	178.37	12.76
6a	E	0.20	4.48	0.25	A	200.00	200.00	14.76	4.43	0.25	14.77	4.43
6b	E	0.10	4.06	0.11	A	100.00	100.00	6.71	4.02	0.11	6.71	4.02
6b	F	0.96	67.96	17.36	F	970.00	970.00	792.14	49.00	13.20	801.11	49.55
6b	G	0.84	44.67	4.80	E	408.00	408.00	240.46	35.36	4.01	241.88	35.57

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	198.96	514.52	104.46	0.00	964.38	694.56	0.207	0.00	0.26	4.698	A
6a	D	839.00	209.75	827.10	179.07	124.35	0.00	1105.11	871.80	0.759	0.00	2.98	12.467	B
6a	E	200.00	50.00	199.01	531.49	419.96	0.00	1006.86	993.40	0.199	0.00	0.25	4.450	A
6b	E	100.00	25.00	99.55	1115.85	90.79	0.00	988.06	969.28	0.101	0.00	0.11	4.050	A
6b	F	970.00	242.50	925.12	154.60	35.74	0.00	1007.59	843.37	0.963	0.00	11.22	34.031	D
6b	G	408.00	102.00	394.05	148.28	812.58	0.00	507.04	551.66	0.805	0.00	3.49	29.079	D

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	520.84	104.97	0.00	964.05	694.56	0.207	0.26	0.26	4.711	A
6a	D	839.00	209.75	838.65	179.97	125.00	0.00	1104.63	871.80	0.760	2.98	3.06	13.485	B
6a	E	200.00	50.00	199.99	537.82	425.82	0.00	1003.39	993.40	0.199	0.25	0.25	4.480	A
6b	E	100.00	25.00	100.00	1152.88	93.27	0.00	986.78	969.28	0.101	0.11	0.11	4.059	A
6b	F	970.00	242.50	957.85	157.36	35.90	0.00	1007.50	843.37	0.963	11.22	14.26	55.752	F
6b	G	408.00	102.00	404.82	152.42	841.33	0.00	489.17	551.66	0.834	3.49	4.28	40.374	E

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	520.96	104.97	0.00	964.05	694.56	0.207	0.26	0.26	4.711	A
6a	D	839.00	209.75	838.88	179.97	125.00	0.00	1104.62	871.80	0.760	3.06	3.09	13.517	B
6a	E	200.00	50.00	200.00	537.94	425.94	0.00	1003.32	993.40	0.199	0.25	0.25	4.481	A
6b	E	100.00	25.00	100.00	1158.55	93.70	0.00	986.56	969.28	0.101	0.11	0.11	4.060	A
6b	F	970.00	242.50	962.68	157.79	35.90	0.00	1007.50	843.37	0.963	14.26	16.09	63.204	F
6b	G	408.00	102.00	406.68	153.01	845.57	0.00	486.54	551.66	0.839	4.28	4.61	43.317	E

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
6a	C	200.00	50.00	200.00	520.99	104.97	0.00	964.05	694.56	0.207	0.26	0.26	4.711	A
6a	D	839.00	209.75	838.94	179.97	125.00	0.00	1104.62	871.80	0.760	3.09	3.11	13.530	B
6a	E	200.00	50.00	200.00	537.97	425.97	0.00	1003.30	993.40	0.199	0.25	0.25	4.481	A
6b	E	100.00	25.00	100.00	1160.95	93.83	0.00	986.49	969.28	0.101	0.11	0.11	4.060	A
6b	F	970.00	242.50	964.90	157.92	35.90	0.00	1007.50	843.37	0.963	16.09	17.36	67.963	F
6b	G	408.00	102.00	407.25	153.28	847.52	0.00	485.33	551.66	0.841	4.61	4.80	44.666	E

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.80	0.25	4.698	A	A
6a	D	39.92	2.66	12.467	B	B
6a	E	3.60	0.24	4.450	A	A
6b	E	1.64	0.11	4.050	A	A
6b	F	118.87	7.92	34.031	D	C
6b	G	42.86	2.86	29.079	D	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.91	0.26	4.711	A	A
6a	D	45.43	3.03	13.485	B	B
6a	E	3.71	0.25	4.480	A	A
6b	E	1.68	0.11	4.059	A	A
6b	F	193.39	12.89	55.752	F	E
6b	G	59.76	3.98	40.374	E	D

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.711	A	A
6a	D	46.21	3.08	13.517	B	B
6a	E	3.72	0.25	4.481	A	A
6b	E	1.69	0.11	4.060	A	A
6b	F	228.51	15.23	63.204	F	E
6b	G	67.09	4.47	43.317	E	D

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
6a	C	3.92	0.26	4.711	A	A
6a	D	46.54	3.10	13.530	B	B
6a	E	3.73	0.25	4.481	A	A
6b	E	1.69	0.11	4.060	A	A
6b	F	251.37	16.76	67.963	F	E
6b	G	70.74	4.72	44.666	E	D

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 07 B128 Ingrave Road - B186 Queens Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 16:07:50

» (Default Analysis Set) - Base, AM
» (Default Analysis Set) - Base, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Base							
Arm A	1.36	7.09	0.58	A	1.24	8.16	0.56	A
Arm B	150.33	634.17	1.19	F	4.53	24.21	0.82	C
Arm C	1.15	8.14	0.54	A	3.50	17.02	0.78	C
	A1 - Option 1							
Arm A	1.59	7.88	0.61	A	1.76	10.14	0.64	B
Arm B	258.41	1083.21	1.34	F	12.89	62.71	0.94	F
Arm C	1.33	8.90	0.57	A	4.67	22.53	0.83	C
	A1 - Option 2							
Arm A	1.59	7.91	0.62	A	1.86	10.59	0.65	B
Arm B	269.29	1128.33	1.35	F	13.95	66.99	0.95	F
Arm C	1.33	8.90	0.57	A	4.94	23.74	0.84	C
	A1 - Option 3							
Arm A	2.05	9.30	0.67	A	1.60	9.52	0.62	A
Arm B	203.02	858.11	1.27	F	20.96	96.94	0.98	F
Arm C	1.29	8.71	0.57	A	5.12	24.77	0.84	C
	A1 - Option 4							
Arm A	1.86	8.74	0.65	A	1.95	10.91	0.66	B
Arm B	273.87	1149.84	1.36	F	18.10	85.10	0.97	F
Arm C	1.34	8.94	0.57	A	5.13	24.72	0.84	C

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

"D1 - Base, AM " model duration: 08:00 - 09:00
"D2 - Base, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 16:07:47

File summary

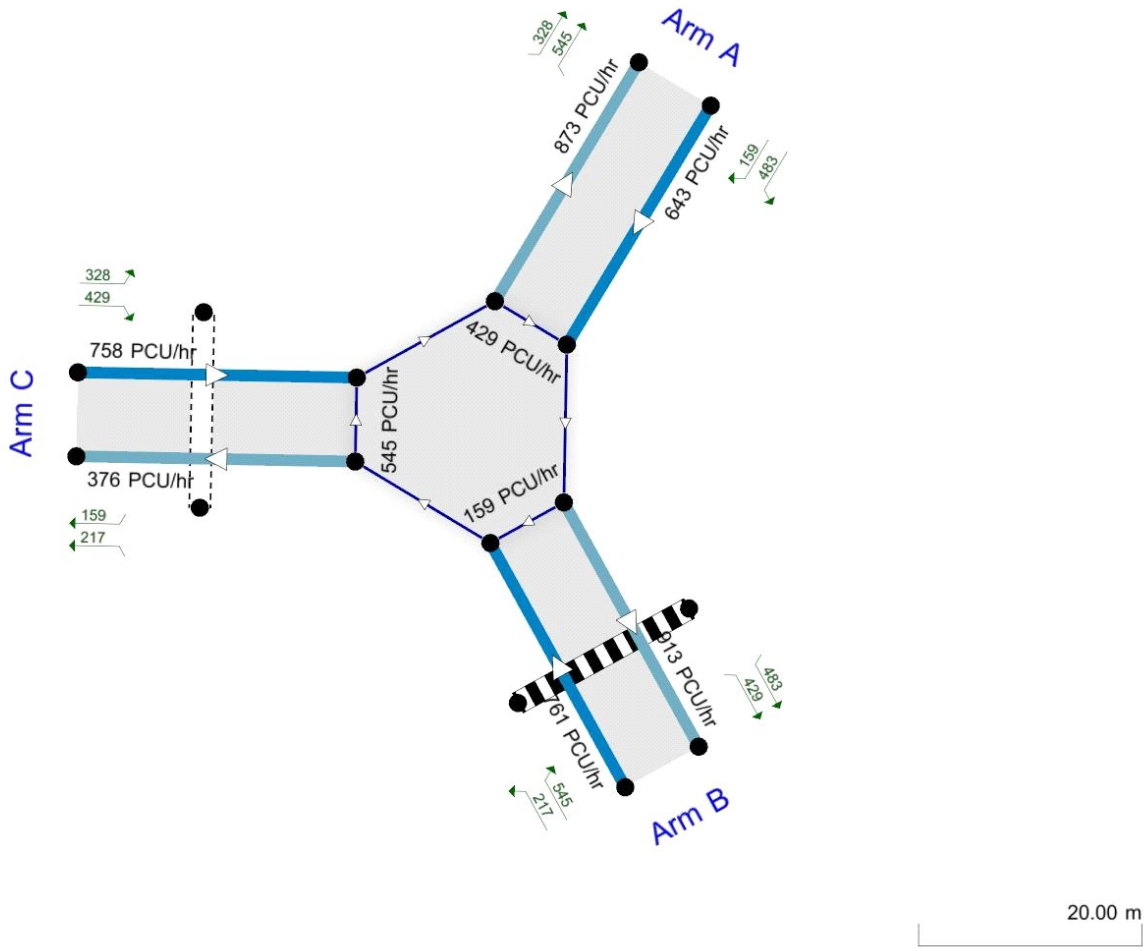
Title	A128 Ingrave Road / B186 Queens Road
Location	Brentwood
Site Number	07
Date	14/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Base, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Base, AM	Base	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	276.56	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	694.00	100.000
B	FLAT	✓	905.00	100.000
C	FLAT	✓	509.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	406.000	288.000
	B	607.000	0.000	298.000
	C	284.000	225.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.59	0.41
	B	0.67	0.00	0.33
	C	0.56	0.44	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.58	7.09	1.36	A	694.00	694.00	79.97	6.91	1.33	80.02	6.92
B	1.19	634.17	150.33	F	905.00	905.00	4628.97	306.89	77.15	5521.71	366.08
C	0.54	8.14	1.15	A	509.00	509.00	67.05	7.90	1.12	67.09	7.91

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	694.00	173.50	688.65	779.44	223.03	0.00	1203.58	987.96	0.577	0.00	1.34	6.923	A
B	905.00	226.25	742.38	625.90	285.78	0.00	760.65	691.34	1.190	0.00	40.65	109.599	F
C	509.00	127.25	504.54	530.23	497.93	0.00	956.83	974.71	0.532	0.00	1.12	7.884	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	694.00	173.50	693.94	792.49	224.96	0.00	1201.57	987.96	0.578	1.34	1.35	7.088	A
B	905.00	226.25	758.21	630.92	287.97	0.00	759.42	691.34	1.192	40.65	77.35	291.051	F
C	509.00	127.25	508.91	537.64	508.54	0.00	951.28	974.71	0.535	1.12	1.14	8.134	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	694.00	173.50	693.98	793.02	224.99	0.00	1201.54	987.96	0.578	1.35	1.36	7.092	A
B	905.00	226.25	758.94	630.98	287.99	0.00	759.41	691.34	1.192	77.35	113.87	462.316	F
C	509.00	127.25	508.98	537.90	509.03	0.00	951.03	974.71	0.535	1.14	1.14	8.142	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	694.00	173.50	693.99	793.18	225.00	0.00	1201.54	987.96	0.578	1.36	1.36	7.092	A
B	905.00	226.25	759.16	630.99	288.00	0.00	759.41	691.34	1.192	113.87	150.33	634.169	F
C	509.00	127.25	508.99	537.97	509.18	0.00	950.95	974.71	0.535	1.14	1.15	8.145	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.02	1.27	6.923	A	A
B	327.73	21.85	109.599	F	F
C	15.84	1.06	7.884	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.21	1.35	7.088	A	A
B	885.48	59.03	291.051	F	F
C	16.94	1.13	8.134	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.34	1.36	7.092	A	A
B	1434.25	95.62	462.316	F	F
C	17.11	1.14	8.142	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.40	1.36	7.092	A	A
B	1981.51	132.10	634.169	F	F
C	17.16	1.14	8.145	A	A

(Default Analysis Set) - Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Base, PM	Base	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	17.07	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	551.00	100.000
B	FLAT	✓	693.00	100.000
C	FLAT	✓	754.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	408.000	143.000
	B	483.000	0.000	210.000
	C	327.000	427.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.74	0.26
	B	0.70	0.00	0.30
	C	0.43	0.57	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.56	8.16	1.24	A	551.00	551.00	72.58	7.90	1.21	72.62	7.91
B	0.82	24.21	4.53	C	693.00	693.00	250.10	21.65	4.17	250.84	21.72
C	0.78	17.02	3.50	C	754.00	754.00	196.59	15.64	3.28	196.97	15.67

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	551.00	137.75	546.18	792.93	419.69	0.00	999.56	889.27	0.551	0.00	1.20	7.860	A
B	693.00	173.25	676.55	824.12	141.75	0.00	841.01	791.33	0.824	0.00	4.11	20.243	C
C	754.00	188.50	741.09	346.76	471.53	0.00	970.62	928.82	0.777	0.00	3.23	14.947	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	551.00	137.75	550.89	808.95	426.59	0.00	992.40	889.27	0.555	1.20	1.23	8.150	A
B	693.00	173.25	691.94	834.51	142.97	0.00	840.33	791.33	0.825	4.11	4.38	23.849	C
C	754.00	188.50	753.27	352.65	482.26	0.00	965.01	928.82	0.781	3.23	3.41	16.873	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	551.00	137.75	550.97	809.62	426.87	0.00	992.11	889.27	0.555	1.23	1.24	8.159	A
B	693.00	173.25	692.60	834.85	142.99	0.00	840.32	791.33	0.825	4.38	4.48	24.111	C
C	754.00	188.50	753.77	352.87	482.72	0.00	964.77	928.82	0.782	3.41	3.47	16.987	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	551.00	137.75	550.99	809.80	426.94	0.00	992.04	889.27	0.555	1.24	1.24	8.162	A
B	693.00	173.25	692.79	834.93	143.00	0.00	840.32	791.33	0.825	4.48	4.53	24.211	C
C	754.00	188.50	753.89	352.93	482.85	0.00	964.70	928.82	0.782	3.47	3.50	17.025	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.08	1.14	7.860	A	A
B	51.87	3.46	20.243	C	C
C	42.54	2.84	14.947	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.34	1.22	8.150	A	A
B	64.09	4.27	23.849	C	C
C	50.13	3.34	16.873	C	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.54	1.24	8.159	A	A
B	66.53	4.44	24.111	C	C
C	51.66	3.44	16.987	C	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.61	1.24	8.162	A	A
B	67.62	4.51	24.211	C	C
C	52.27	3.48	17.025	C	B

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	485.26	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	729.00	100.000
B	FLAT	✓	1013.00	100.000
C	FLAT	✓	541.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	437.000	292.000
	B	695.000	0.000	318.000
	C	301.000	240.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.60	0.40
	B	0.69	0.00	0.31
	C	0.56	0.44	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.61	7.88	1.59	A	729.00	729.00	92.88	7.64	1.55	92.94	7.65
B	1.34	1083.21	258.41	F	1013.00	1013.00	7824.48	463.44	130.41	10470.09	620.14
C	0.57	8.90	1.33	A	541.00	541.00	77.71	8.62	1.30	77.77	8.62

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	722.79	810.83	237.70	0.00	1188.36	990.14	0.613	0.00	1.55	7.634	A
B	1013.00	253.25	747.31	670.98	289.51	0.00	758.56	698.81	1.335	0.00	66.42	168.444	F
C	541.00	135.25	535.81	524.11	512.72	0.00	949.10	966.49	0.570	0.00	1.30	8.607	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.91	820.23	239.96	0.00	1186.01	990.14	0.615	1.55	1.58	7.872	A
B	1013.00	253.25	756.88	676.90	291.96	0.00	757.20	698.81	1.338	66.42	130.45	477.063	F
C	541.00	135.25	540.91	529.56	519.28	0.00	945.67	966.49	0.572	1.30	1.32	8.890	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.97	820.40	239.99	0.00	1185.98	990.14	0.615	1.58	1.58	7.875	A
B	1013.00	253.25	757.07	676.97	291.99	0.00	757.18	698.81	1.338	130.45	194.44	779.768	F
C	541.00	135.25	540.97	529.65	519.41	0.00	945.60	966.49	0.572	1.32	1.33	8.895	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.99	820.44	239.99	0.00	1185.98	990.14	0.615	1.58	1.59	7.876	A
B	1013.00	253.25	757.12	676.99	291.99	0.00	757.18	698.81	1.338	194.44	258.41	1083.209	F
C	541.00	135.25	540.99	529.67	519.45	0.00	945.59	966.49	0.572	1.33	1.33	8.895	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.92	1.46	7.634	A	A
B	514.79	34.32	168.444	F	F
C	18.28	1.22	8.607	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.50	1.57	7.872	A	A
B	1476.68	98.45	477.063	F	F
C	19.67	1.31	8.890	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.69	1.58	7.875	A	A
B	2436.68	162.45	779.768	F	F
C	19.85	1.32	8.895	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.76	1.58	7.876	A	A
B	3396.31	226.42	1083.209	F	F
C	19.91	1.33	8.895	A	A

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	33.39	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	629.00	100.000
B	FLAT	✓	784.00	100.000
C	FLAT	✓	770.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	469.000	160.000
	B	555.000	0.000	229.000
	C	335.000	435.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.75	0.25
	B	0.71	0.00	0.29
	C	0.44	0.56	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.64	10.14	1.76	B	629.00	629.00	101.57	9.69	1.69	101.66	9.70
B	0.94	62.71	12.89	F	784.00	784.00	611.61	46.81	10.19	617.61	47.27
C	0.83	22.53	4.67	C	770.00	770.00	253.58	19.76	4.23	254.28	19.81

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	629.00	157.25	622.29	857.62	425.86	0.00	993.15	893.66	0.633	0.00	1.68	9.543	A
B	784.00	196.00	748.20	889.86	158.29	0.00	831.78	793.26	0.943	0.00	8.95	34.663	D
C	770.00	192.50	753.83	376.83	529.65	0.00	940.25	923.59	0.819	0.00	4.04	18.008	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	629.00	157.25	628.77	883.45	434.09	0.00	984.62	893.66	0.639	1.68	1.73	10.104	B
B	784.00	196.00	775.74	902.92	159.94	0.00	830.86	793.26	0.944	8.95	11.02	53.905	F
C	770.00	192.50	768.39	386.53	549.15	0.00	930.07	923.59	0.828	4.04	4.45	21.837	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	629.00	157.25	628.94	886.53	434.67	0.00	984.02	893.66	0.639	1.73	1.75	10.131	B
B	784.00	196.00	779.46	903.62	159.98	0.00	830.84	793.26	0.944	11.02	12.15	59.479	F
C	770.00	192.50	769.41	387.66	551.78	0.00	928.69	923.59	0.829	4.45	4.59	22.332	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	629.00	157.25	628.97	887.77	434.83	0.00	983.85	893.66	0.639	1.75	1.76	10.140	B
B	784.00	196.00	781.04	903.81	159.99	0.00	830.83	793.26	0.944	12.15	12.89	62.710	F
C	770.00	192.50	769.69	388.13	552.90	0.00	928.11	923.59	0.830	4.59	4.67	22.526	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.40	1.56	9.543	A	A
B	97.38	6.49	34.663	D	C
C	51.64	3.44	18.008	C	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.73	1.72	10.104	B	B
B	151.62	10.11	53.905	F	D
C	64.42	4.29	21.837	C	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	26.15	1.74	10.131	B	B
B	174.44	11.63	59.479	F	E
C	67.97	4.53	22.332	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	26.30	1.75	10.140	B	B
B	188.17	12.54	62.710	F	E
C	69.54	4.64	22.526	C	C

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	507.84	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	729.00	100.000
B	FLAT	✓	1024.00	100.000
C	FLAT	✓	543.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	437.000	292.000
	B	698.000	0.000	326.000
	C	301.000	242.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.60	0.40
	B	0.68	0.00	0.32
	C	0.55	0.45	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.62	7.91	1.59	A	729.00	729.00	93.28	7.68	1.55	93.35	7.68
B	1.35	1128.33	269.29	F	1024.00	1024.00	8147.97	477.42	135.80	11021.05	645.76
C	0.57	8.90	1.33	A	543.00	543.00	78.05	8.62	1.30	78.11	8.63

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	722.76	807.80	239.68	0.00	1186.30	987.44	0.615	0.00	1.56	7.667	A
B	1024.00	256.00	747.74	672.94	289.50	0.00	758.57	699.41	1.350	0.00	69.06	174.529	F
C	543.00	135.75	537.79	527.55	509.69	0.00	950.68	967.89	0.571	0.00	1.30	8.616	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.91	816.89	241.96	0.00	1183.94	987.44	0.616	1.56	1.58	7.908	A
B	1024.00	256.00	756.91	678.90	291.96	0.00	757.20	699.41	1.352	69.06	135.84	495.992	F
C	543.00	135.75	542.91	532.93	515.94	0.00	947.42	967.89	0.573	1.30	1.33	8.896	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.97	817.04	241.99	0.00	1183.91	987.44	0.616	1.58	1.59	7.911	A
B	1024.00	256.00	757.08	678.97	291.99	0.00	757.18	699.41	1.352	135.84	202.57	811.797	F
C	543.00	135.75	542.97	533.01	516.06	0.00	947.36	967.89	0.573	1.33	1.33	8.900	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	729.00	182.25	728.99	817.08	241.99	0.00	1183.90	987.44	0.616	1.59	1.59	7.912	A
B	1024.00	256.00	757.13	678.99	291.99	0.00	757.18	699.41	1.352	202.57	269.29	1128.328	F
C	543.00	135.75	542.99	533.03	516.09	0.00	947.34	967.89	0.573	1.33	1.33	8.901	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.01	1.47	7.667	A	A
B	534.15	35.61	174.529	F	F
C	18.37	1.22	8.616	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.61	1.57	7.908	A	A
B	1536.87	102.46	495.992	F	F
C	19.75	1.32	8.896	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.80	1.59	7.911	A	A
B	2538.05	169.20	811.797	F	F
C	19.93	1.33	8.900	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.87	1.59	7.912	A	A
B	3538.90	235.93	1128.328	F	F
C	20.00	1.33	8.901	A	A

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	35.49	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	639.00	100.000
B	FLAT	✓	794.00	100.000
C	FLAT	✓	775.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	488.000	151.000
	B	562.000	0.000	232.000
	C	335.000	440.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.76	0.24
	B	0.71	0.00	0.29
	C	0.43	0.57	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.65	10.59	1.86	B	639.00	639.00	107.43	10.09	1.79	107.54	10.10
B	0.95	66.99	13.95	F	794.00	794.00	651.71	49.25	10.86	658.70	49.78
C	0.84	23.74	4.94	C	775.00	775.00	266.63	20.64	4.44	267.42	20.70

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	639.00	159.75	631.91	863.05	430.39	0.00	988.45	892.93	0.646	0.00	1.77	9.910	A
B	794.00	198.50	756.38	912.98	149.32	0.00	836.79	802.37	0.949	0.00	9.41	35.629	E
C	775.00	193.75	758.08	370.33	535.37	0.00	937.27	920.26	0.827	0.00	4.23	18.644	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	639.00	159.75	638.74	889.61	438.97	0.00	979.56	892.93	0.652	1.77	1.84	10.547	B
B	794.00	198.50	784.67	926.77	150.94	0.00	835.89	802.37	0.950	9.41	11.74	56.542	F
C	775.00	193.75	773.19	380.21	555.40	0.00	926.81	920.26	0.836	4.23	4.68	22.910	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	639.00	159.75	638.93	892.95	439.62	0.00	978.89	892.93	0.653	1.84	1.85	10.582	B
B	794.00	198.50	788.69	927.56	150.98	0.00	835.86	802.37	0.950	11.74	13.07	63.062	F
C	775.00	193.75	774.32	381.43	558.24	0.00	925.32	920.26	0.838	4.68	4.85	23.503	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	639.00	159.75	638.97	894.33	439.80	0.00	978.70	892.93	0.653	1.85	1.86	10.590	B
B	794.00	198.50	790.45	927.77	150.99	0.00	835.86	802.37	0.950	13.07	13.95	66.986	F
C	775.00	193.75	774.64	381.96	559.49	0.00	924.67	920.26	0.838	4.85	4.94	23.742	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.62	1.64	9.910	A	A
B	101.28	6.75	35.629	E	D
C	53.67	3.58	18.644	C	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.22	1.81	10.547	B	B
B	160.58	10.71	56.542	F	E
C	67.69	4.51	22.910	C	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.71	1.85	10.582	B	B
B	186.80	12.45	63.062	F	E
C	71.72	4.78	23.503	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.88	1.86	10.590	B	B
B	203.05	13.54	66.986	F	E
C	73.55	4.90	23.742	C	C

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	361.94	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	802.00	100.000
B	FLAT	✓	953.00	100.000
C	FLAT	✓	538.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	503.000	299.000
	B	644.000	0.000	309.000
	C	301.000	237.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.63	0.37
	B	0.68	0.00	0.32
	C	0.56	0.44	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.67	9.30	2.05	A	802.00	802.00	119.59	8.95	1.99	119.70	8.95
B	1.27	858.11	203.02	F	953.00	953.00	6179.64	389.06	102.99	7821.20	492.42
C	0.57	8.71	1.29	A	538.00	538.00	75.70	8.44	1.26	75.75	8.45

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	802.00	200.50	794.01	798.88	234.78	0.00	1191.39	993.88	0.673	0.00	2.00	8.890	A
B	953.00	238.25	740.95	732.76	296.02	0.00	754.93	713.35	1.262	0.00	53.01	138.406	F
C	538.00	134.50	532.95	536.27	500.71	0.00	955.37	965.12	0.563	0.00	1.26	8.426	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	802.00	200.50	801.84	809.61	236.96	0.00	1189.12	993.88	0.674	2.00	2.04	9.286	A
B	953.00	238.25	752.72	739.86	298.94	0.00	753.30	713.35	1.265	53.01	103.08	383.031	F
C	538.00	134.50	537.91	543.00	508.66	0.00	951.22	965.12	0.566	1.26	1.29	8.706	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	802.00	200.50	801.95	809.88	236.99	0.00	1189.09	993.88	0.674	2.04	2.05	9.294	A
B	953.00	238.25	753.07	739.96	298.98	0.00	753.28	713.35	1.265	103.08	153.06	620.192	F
C	538.00	134.50	537.97	543.16	508.89	0.00	951.10	965.12	0.566	1.29	1.29	8.712	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	802.00	200.50	801.98	809.95	236.99	0.00	1189.09	993.88	0.674	2.05	2.05	9.296	A
B	953.00	238.25	753.16	739.98	298.99	0.00	753.27	713.35	1.265	153.06	203.02	858.112	F
C	538.00	134.50	537.99	543.20	508.96	0.00	951.06	965.12	0.566	1.29	1.29	8.713	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.81	1.85	8.890	A	A
B	416.92	27.79	138.406	F	F
C	17.82	1.19	8.426	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.33	2.02	9.286	A	A
B	1170.91	78.06	383.031	F	F
C	19.15	1.28	8.706	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.66	2.04	9.294	A	A
B	1921.13	128.08	620.192	F	F
C	19.33	1.29	8.712	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.78	2.05	9.296	A	A
B	2670.67	178.04	858.112	F	F
C	19.40	1.29	8.713	A	A

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	47.29	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	609.00	100.000
B	FLAT	✓	813.00	100.000
C	FLAT	✓	771.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	447.000	162.000
	B	586.000	0.000	227.000
	C	339.000	432.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.72	0.00	0.28
	C	0.44	0.56	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.62	9.52	1.60	A	609.00	609.00	92.62	9.12	1.54	92.69	9.13
B	0.98	96.94	20.96	F	813.00	813.00	891.74	65.81	14.86	907.63	66.98
C	0.84	24.77	5.12	C	771.00	771.00	273.77	21.30	4.56	274.63	21.37

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	602.88	883.38	422.34	0.00	996.81	899.73	0.611	0.00	1.53	9.005	A
B	813.00	203.25	765.77	864.84	160.37	0.00	830.62	786.56	0.979	0.00	11.81	41.633	E
C	771.00	192.75	753.76	374.18	551.96	0.00	928.60	920.77	0.830	0.00	4.31	19.056	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	608.81	912.15	430.87	0.00	987.95	899.73	0.616	1.53	1.58	9.486	A
B	813.00	203.25	796.40	877.73	161.95	0.00	829.74	786.56	0.980	11.81	15.96	73.171	F
C	771.00	192.75	768.99	384.31	574.04	0.00	917.07	920.77	0.841	4.31	4.81	23.701	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	608.95	916.49	431.56	0.00	987.24	899.73	0.617	1.58	1.59	9.511	A
B	813.00	203.25	801.67	878.52	161.99	0.00	829.72	786.56	0.980	15.96	18.79	86.958	F
C	771.00	192.75	770.22	385.82	577.84	0.00	915.08	920.77	0.843	4.81	5.01	24.443	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	609.00	152.25	608.98	918.55	431.76	0.00	987.04	899.73	0.617	1.59	1.60	9.521	A
B	813.00	203.25	804.31	878.74	161.99	0.00	829.72	786.56	0.980	18.79	20.96	96.938	F
C	771.00	192.75	770.57	386.57	579.73	0.00	914.09	920.77	0.843	5.01	5.12	24.768	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.45	1.43	9.005	A	A
B	120.58	8.04	41.633	E	D
C	54.49	3.63	19.056	C	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.44	1.56	9.486	A	A
B	210.71	14.05	73.171	F	E
C	69.35	4.62	23.701	C	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.80	1.59	9.511	A	A
B	261.68	17.45	86.958	F	F
C	73.89	4.93	24.443	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.93	1.60	9.521	A	A
B	298.76	19.92	96.938	F	F
C	76.03	5.07	24.768	C	C

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	509.39	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	771.00	100.000
B	FLAT	✓	1027.00	100.000
C	FLAT	✓	543.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	476.000	295.000
	B	706.000	0.000	321.000
	C	300.000	243.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.62	0.38
	B	0.69	0.00	0.31
	C	0.55	0.45	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.65	8.74	1.86	A	771.00	771.00	108.43	8.44	1.81	108.52	8.44
B	1.36	1149.84	273.87	F	1027.00	1027.00	8283.29	483.93	138.05	11261.55	657.93
C	0.57	8.94	1.34	A	543.00	543.00	78.37	8.66	1.31	78.43	8.67

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	771.00	192.75	763.75	810.22	240.66	0.00	1185.29	988.19	0.650	0.00	1.81	8.404	A
B	1027.00	256.75	746.41	712.18	292.23	0.00	757.05	709.13	1.357	0.00	70.15	177.380	F
C	543.00	135.75	537.77	525.52	513.11	0.00	948.90	962.28	0.572	0.00	1.31	8.649	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	771.00	192.75	770.87	819.14	242.96	0.00	1182.90	988.19	0.652	1.81	1.84	8.731	A
B	1027.00	256.75	755.26	718.88	294.95	0.00	755.53	709.13	1.359	70.15	138.08	504.953	F
C	543.00	135.75	542.91	531.01	519.19	0.00	945.72	962.28	0.574	1.31	1.33	8.933	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	771.00	192.75	770.96	819.29	242.99	0.00	1182.87	988.19	0.652	1.84	1.85	8.736	A
B	1027.00	256.75	755.41	718.96	294.99	0.00	755.51	709.13	1.359	138.08	205.98	827.036	F
C	543.00	135.75	542.97	531.10	519.30	0.00	945.66	962.28	0.574	1.33	1.34	8.938	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	771.00	192.75	770.98	819.32	242.99	0.00	1182.86	988.19	0.652	1.85	1.86	8.738	A
B	1027.00	256.75	755.46	718.98	294.99	0.00	755.51	709.13	1.359	205.98	273.87	1149.843	F
C	543.00	135.75	542.99	531.12	519.33	0.00	945.65	962.28	0.574	1.34	1.34	8.938	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.36	1.69	8.404	A	A
B	542.06	36.14	177.380	F	F
C	18.44	1.23	8.649	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.48	1.83	8.731	A	A
B	1561.85	104.12	504.953	F	F
C	19.84	1.32	8.933	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.74	1.85	8.736	A	A
B	2580.51	172.03	827.036	F	F
C	20.02	1.33	8.938	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.84	1.86	8.738	A	A
B	3598.87	239.92	1149.843	F	F
C	20.08	1.34	8.938	A	A

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Pelican/Puffin Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	42.49	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Ingrave Road N	
B	B	Ingrave Road S	
C	C	Queens Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	5.00	10.01	18.82	19.60	0.00	
B	3.50	3.50	4.20	9.24	13.53	6.90	0.00	
C	2.70	2.70	7.00	45.00	10.73	6.70	0.00	✓

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Puffin

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	7.70	8.00		Distance	7.00	5.00				

Pelican/ Puffin Crossings

Arm	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)	Space between crossing and junction entry (PCU)
C	3.00	2.90	1.00	6.00	6.00	7.00	3.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.037	1434.948
B		(calculated)	(calculated)	0.558	920.111
C		(calculated)	(calculated)	0.522	1216.945

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	650.00	100.000
B	FLAT	✓	805.00	100.000
C	FLAT	✓	775.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	489.000	161.000
	B	576.000	0.000	229.000
	C	336.000	439.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.75	0.25
	B	0.72	0.00	0.28
	C	0.43	0.57	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.66	10.91	1.95	B	650.00	650.00	112.30	10.37	1.87	112.42	10.38
B	0.97	85.10	18.10	F	805.00	805.00	796.84	59.39	13.28	808.68	60.27
C	0.84	24.72	5.13	C	775.00	775.00	275.02	21.29	4.58	275.89	21.36

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	650.00	162.50	642.60	873.29	429.17	0.00	989.72	894.76	0.657	0.00	1.85	10.168	B
B	805.00	201.25	761.42	912.60	159.17	0.00	831.30	796.44	0.968	0.00	10.90	39.470	E
C	775.00	193.75	757.65	375.77	544.81	0.00	932.33	919.24	0.831	0.00	4.34	19.064	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	650.00	162.50	649.72	901.36	437.87	0.00	980.70	894.76	0.663	1.85	1.92	10.857	B
B	805.00	201.25	791.34	926.66	160.93	0.00	830.31	796.44	0.970	10.90	14.31	66.987	F
C	775.00	193.75	773.00	386.04	566.22	0.00	921.15	919.24	0.841	4.34	4.84	23.693	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	650.00	162.50	649.92	905.40	438.56	0.00	979.98	894.76	0.663	1.92	1.94	10.898	B
B	805.00	201.25	796.25	927.50	160.98	0.00	830.28	796.44	0.970	14.31	16.50	77.773	F
C	775.00	193.75	774.23	387.49	569.74	0.00	919.31	919.24	0.843	4.84	5.03	24.408	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	650.00	162.50	649.96	907.25	438.76	0.00	979.77	894.76	0.663	1.94	1.95	10.909	B
B	805.00	201.25	798.61	927.74	160.99	0.00	830.28	796.44	0.970	16.50	18.10	85.103	F
C	775.00	193.75	774.58	388.17	571.43	0.00	918.43	919.24	0.844	5.03	5.13	24.718	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.65	1.71	10.168	B	B
B	113.36	7.56	39.470	E	D
C	54.80	3.65	19.064	C	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	28.46	1.90	10.857	B	B
B	191.40	12.76	66.987	F	E
C	69.71	4.65	23.693	C	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	29.00	1.93	10.898	B	B
B	232.06	15.47	77.773	F	E
C	74.21	4.95	24.408	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	29.19	1.95	10.909	B	B
B	260.02	17.33	85.103	F	F
C	76.31	5.09	24.718	C	C

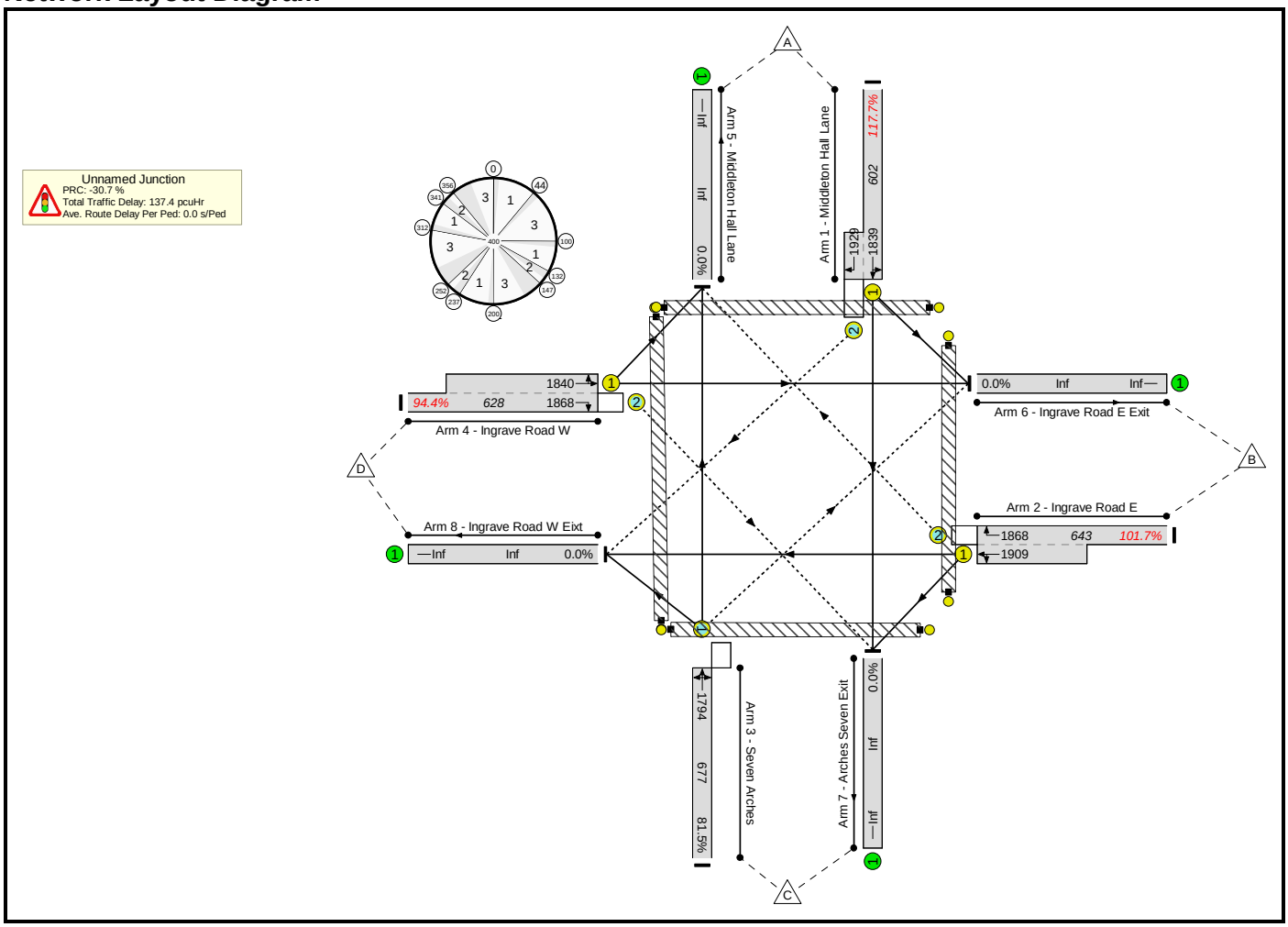
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	08.A128 Ingrave Road - Middleton Hall Lane - 7 arches Road Rev B.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 3: 'AM Baseline' (FG3: 'AM Baseline', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

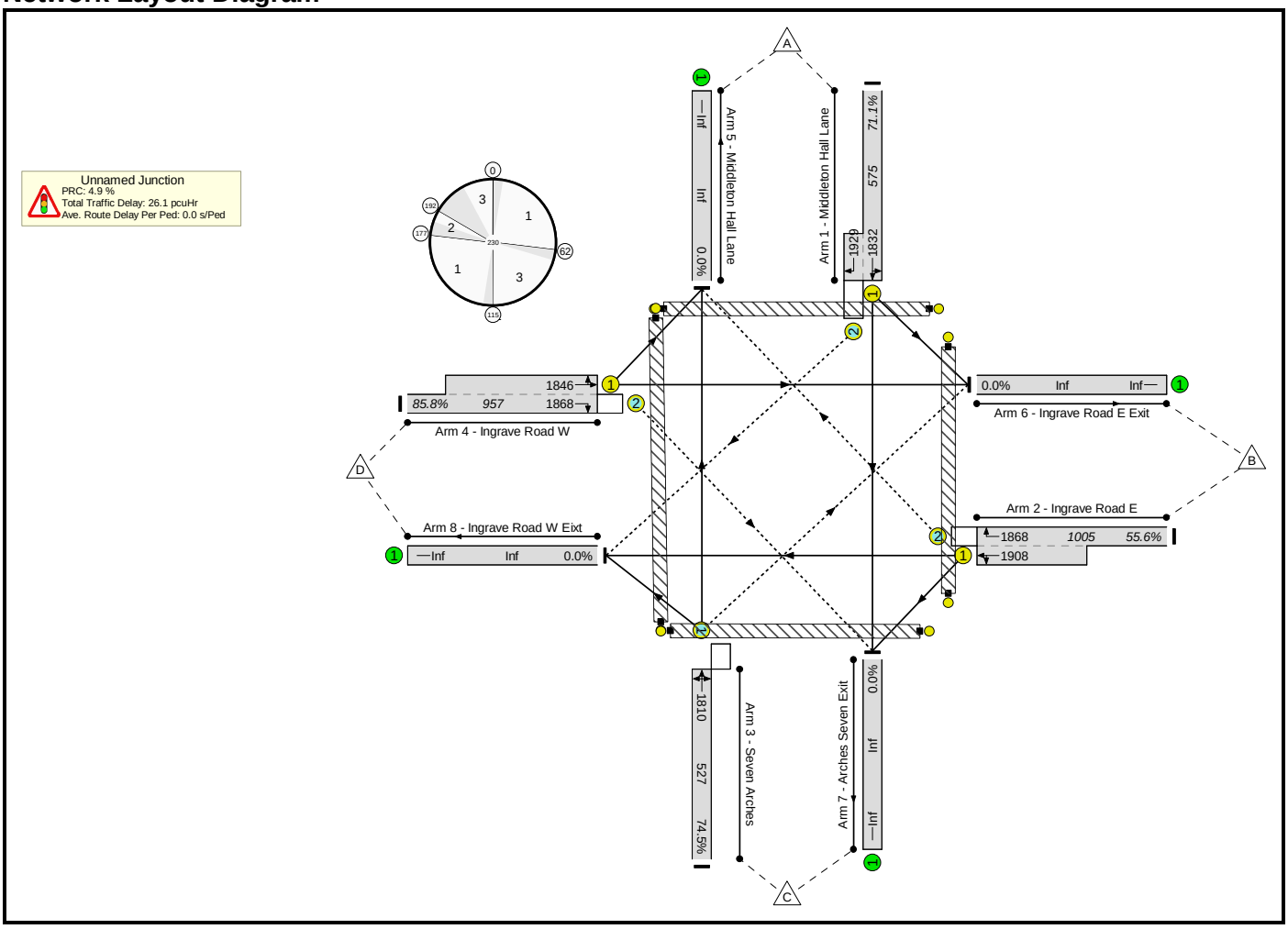
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**117.7%**	**155**	**0**	**221**	**137.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**117.7%**	**155**	**0**	**221**	**137.4**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		4	147	-	708	1839:1929	602	117.7%	79	0	90	88.8	451.6	102.2
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		4	122	-	654	1868:1909	643	101.7%	40	0	56	26.3	145.0	37.8
3/1	Seven Arches Ahead Right Left	O	D		4	147	-	552	1794	677	81.5%	15	0	14	6.8	44.2	17.8
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		4	118	-	593	1868:1840	628	94.4%	22	0	61	15.4	93.7	21.7
Ped Link: P1	Unnamed Ped Link	-	E		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		3	21	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -30.7 Total Delay for Signalled Lanes (pcuHr): 137.37 Cycle Time (s): 400
PRC Over All Lanes (%): -30.7 Total Delay Over All Lanes(pcuHr): 137.37

Basic Results Summary

Scenario 4: 'PM Baseline' (FG4: 'PM Baseline', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

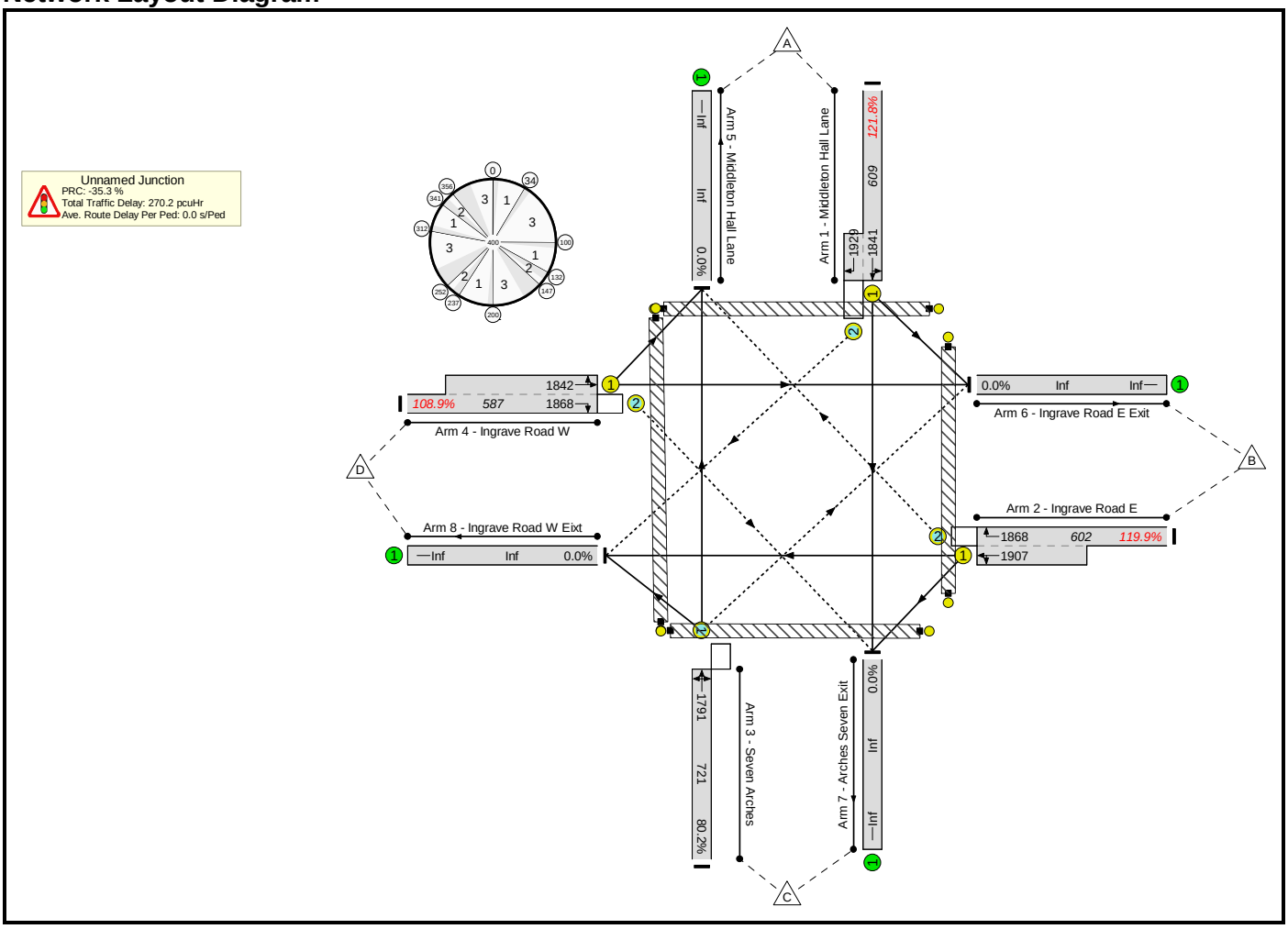
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.8%**	**201**	**0**	**45**	**26.1**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.8%**	**201**	**0**	**45**	**26.1**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		2	65	-	409	1832:1929	575	71.1%	45	0	33	6.5	57.1	13.7
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		2	114	-	559	1868:1908	1005	55.6%	77	0	0	4.2	27.2	11.0
3/1	Seven Arches Ahead Right Left	O	D		2	65	-	393	1810	527	74.5%	20	0	13	6.8	62.2	14.6
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		2	112	-	821	1868:1846	957	85.8%	58	0	0	8.6	37.9	24.4
Ped Link: P1	Unnamed Ped Link	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 4.9 Total Delay for Signalled Lanes (pcuHr): 26.15 Cycle Time (s): 230
PRC Over All Lanes (%): 4.9 Total Delay Over All Lanes(pcuHr): 26.15

Basic Results Summary

Scenario 5: 'AM Option 1' (FG5: 'AM Option 1', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

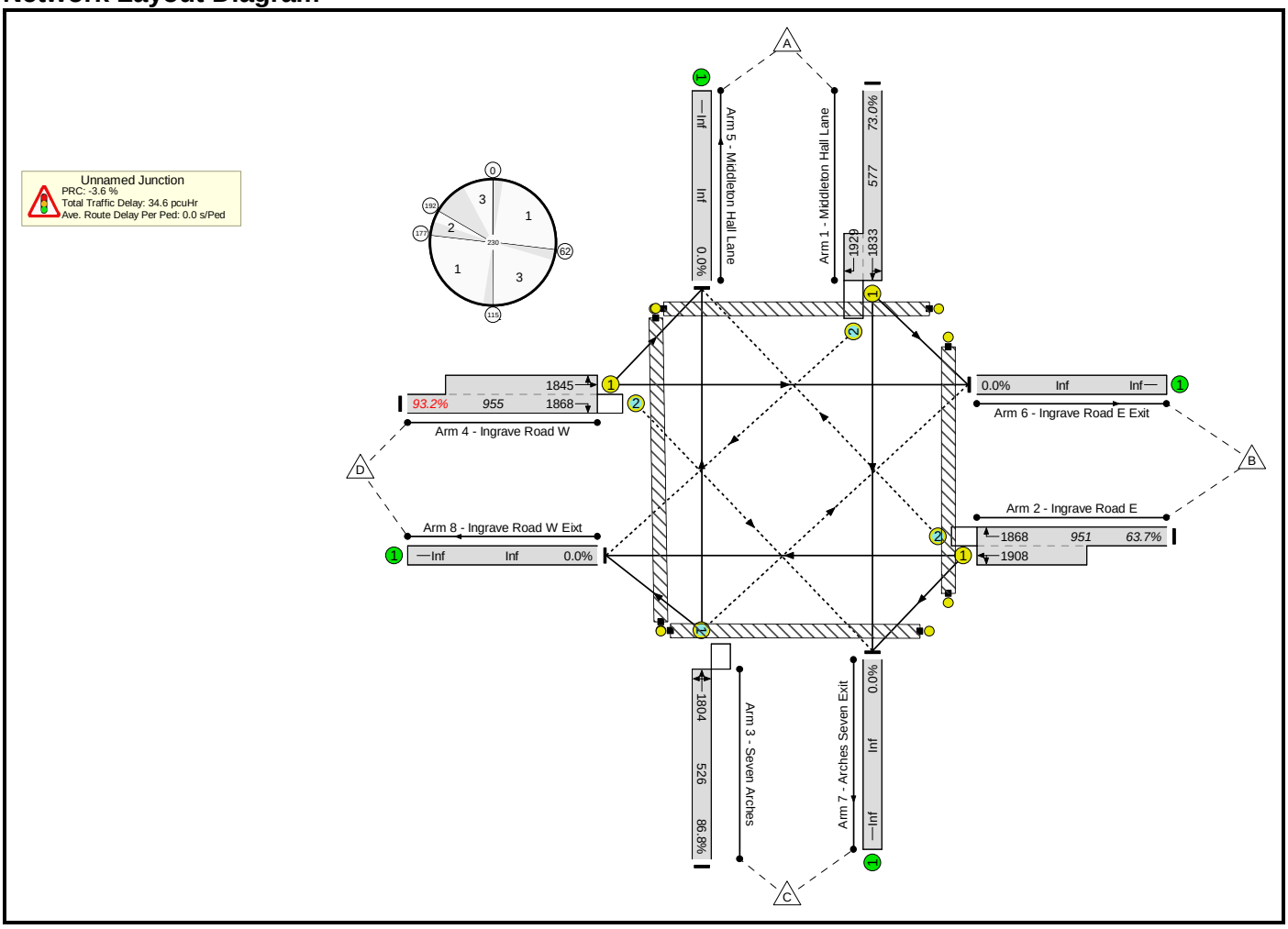
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.8%**	**110**	**0**	**248**	**270.2**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.8%**	**110**	**0**	**248**	**270.2**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		4	157	-	742	1841:1929	609	121.8%	89	0	94	110.9	537.9	127.7
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		4	112	-	722	1868:1907	602	119.9%	0	0	72	101.2	504.7	111.1
3/1	Seven Arches Ahead Right Left	O	D		4	157	-	578	1791	721	80.2%	21	0	9	6.7	41.7	18.7
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		4	108	-	639	1868:1842	587	108.9%	0	0	72	51.4	289.5	57.1
Ped Link: P1	Unnamed Ped Link	-	E		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		3	21	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.3 Total Delay for Signalled Lanes (pcuHr): 270.17 Cycle Time (s): 400
PRC Over All Lanes (%): -35.3 Total Delay Over All Lanes(pcuHr): 270.17

Basic Results Summary

Scenario 6: 'PM Option 1' (FG6: 'PM Option 1', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

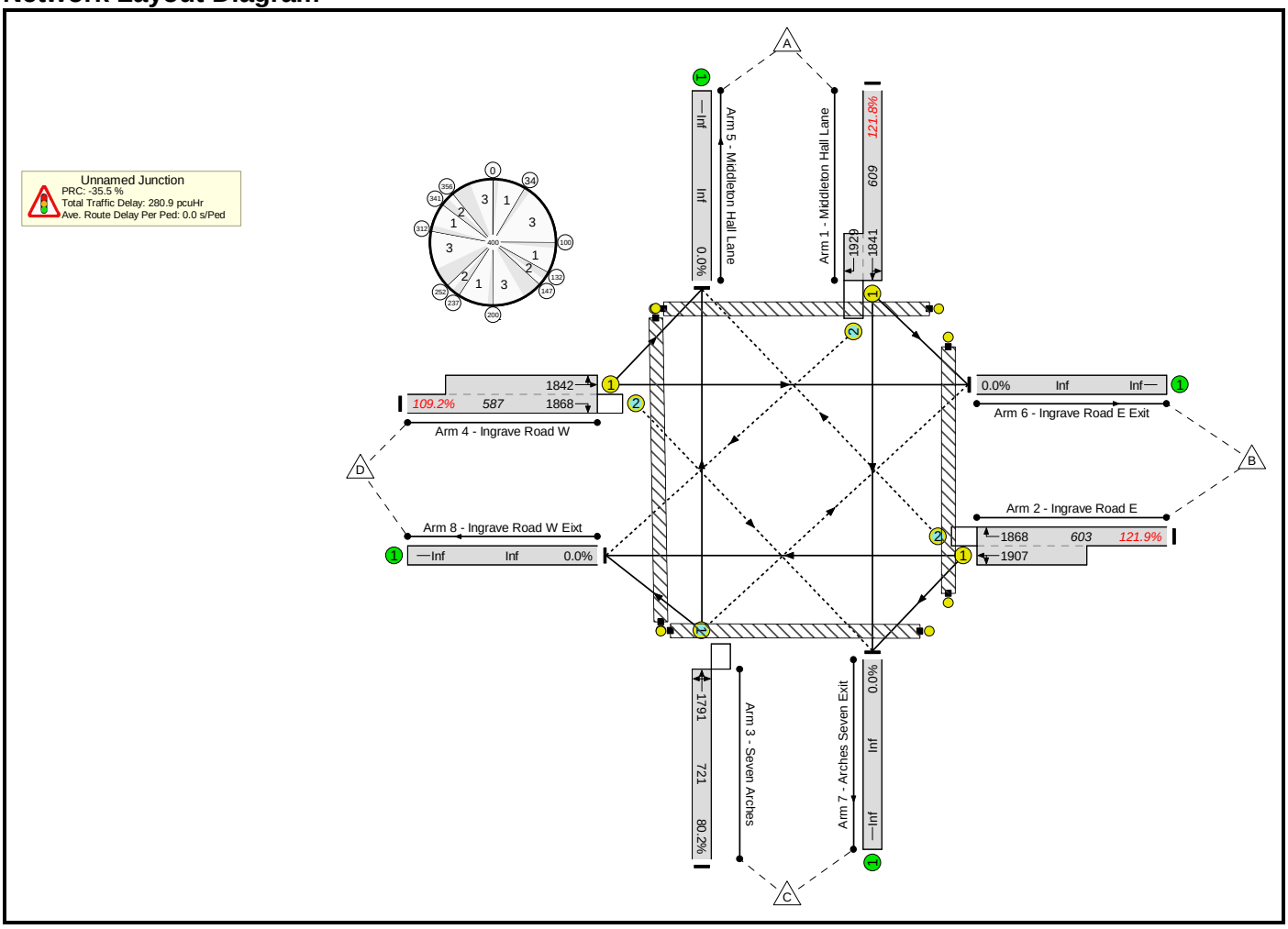
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.2%**	**164**	**0**	**91**	**34.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.2%**	**164**	**0**	**91**	**34.6**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		2	65	-	421	1833:1929	577	73.0%	47	0	37	7.0	60.0	14.2
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		2	114	-	606	1868:1908	951	63.7%	35	0	43	5.0	29.5	12.7
3/1	Seven Arches Ahead Right Left	O	D		2	65	-	456	1804	526	86.8%	23	0	11	10.1	79.9	21.1
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		2	112	-	890	1868:1845	955	93.2%	59	0	0	12.5	50.6	31.3
Ped Link: P1	Unnamed Ped Link	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -3.6 Total Delay for Signalled Lanes (pcuHr): 34.62 Cycle Time (s): 230
PRC Over All Lanes (%): -3.6 Total Delay Over All Lanes(pcuHr): 34.62

Basic Results Summary

Scenario 7: 'AM Option 2' (FG7: 'AM Option 2', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

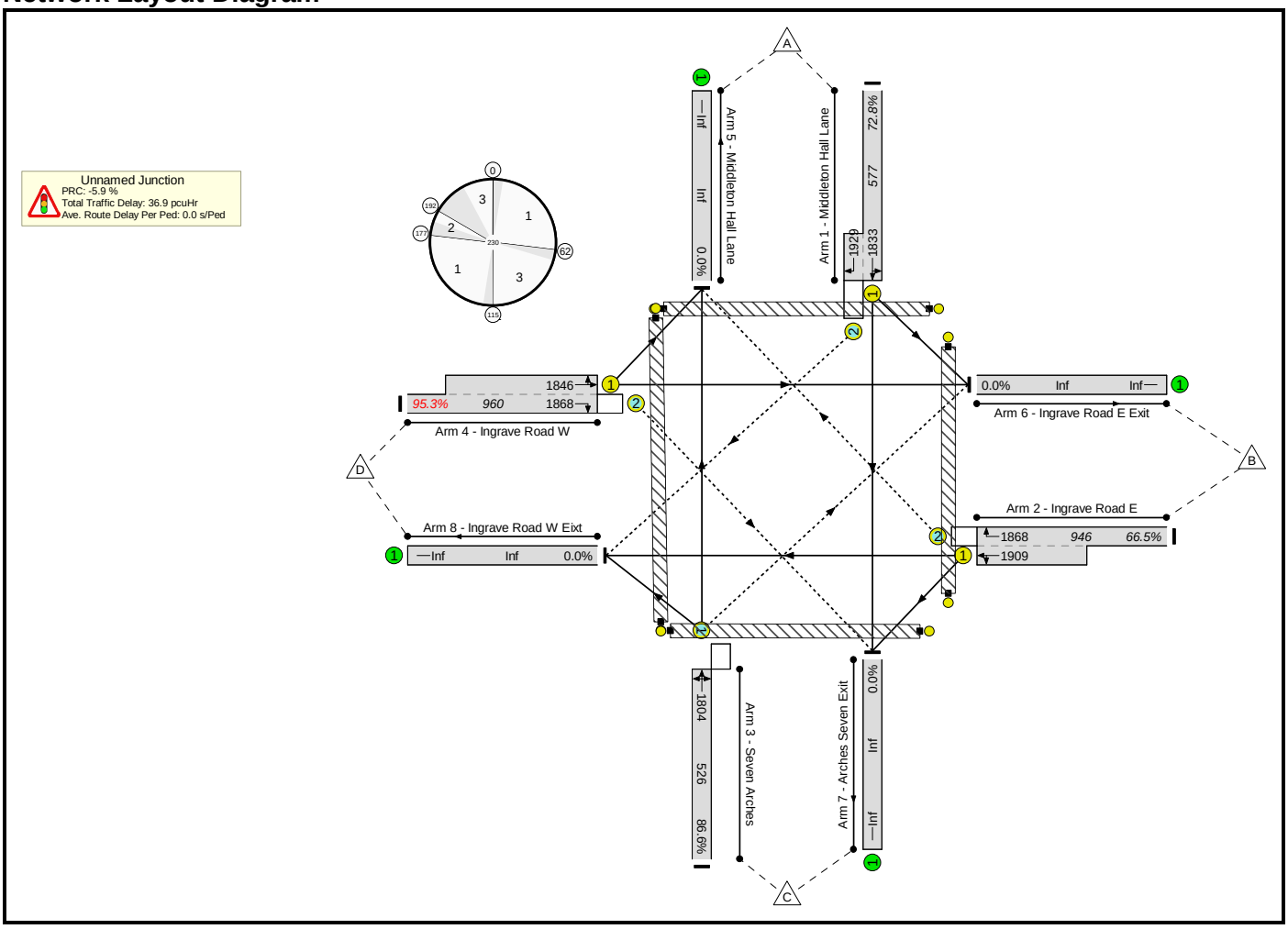
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		4	157	-	742	1841:1929	609	121.8%	89	0	94	110.9	537.9	127.7
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		4	112	-	735	1868:1907	603	121.9%	0	0	72	110.5	541.3	121.4
3/1	Seven Arches Ahead Right Left	O	D		4	157	-	578	1791	721	80.2%	21	0	9	6.7	41.7	18.7
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		4	108	-	641	1868:1842	587	109.2%	0	0	72	52.8	296.5	58.6
Ped Link: P1	Unnamed Ped Link	-	E		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		3	21	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.5 Total Delay for Signalled Lanes (pcuHr): 280.87 Cycle Time (s): 400
PRC Over All Lanes (%): -35.5 Total Delay Over All Lanes(pcuHr): 280.87

Basic Results Summary

Scenario 8: 'PM Option 2' (FG8: 'PM Option 2', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

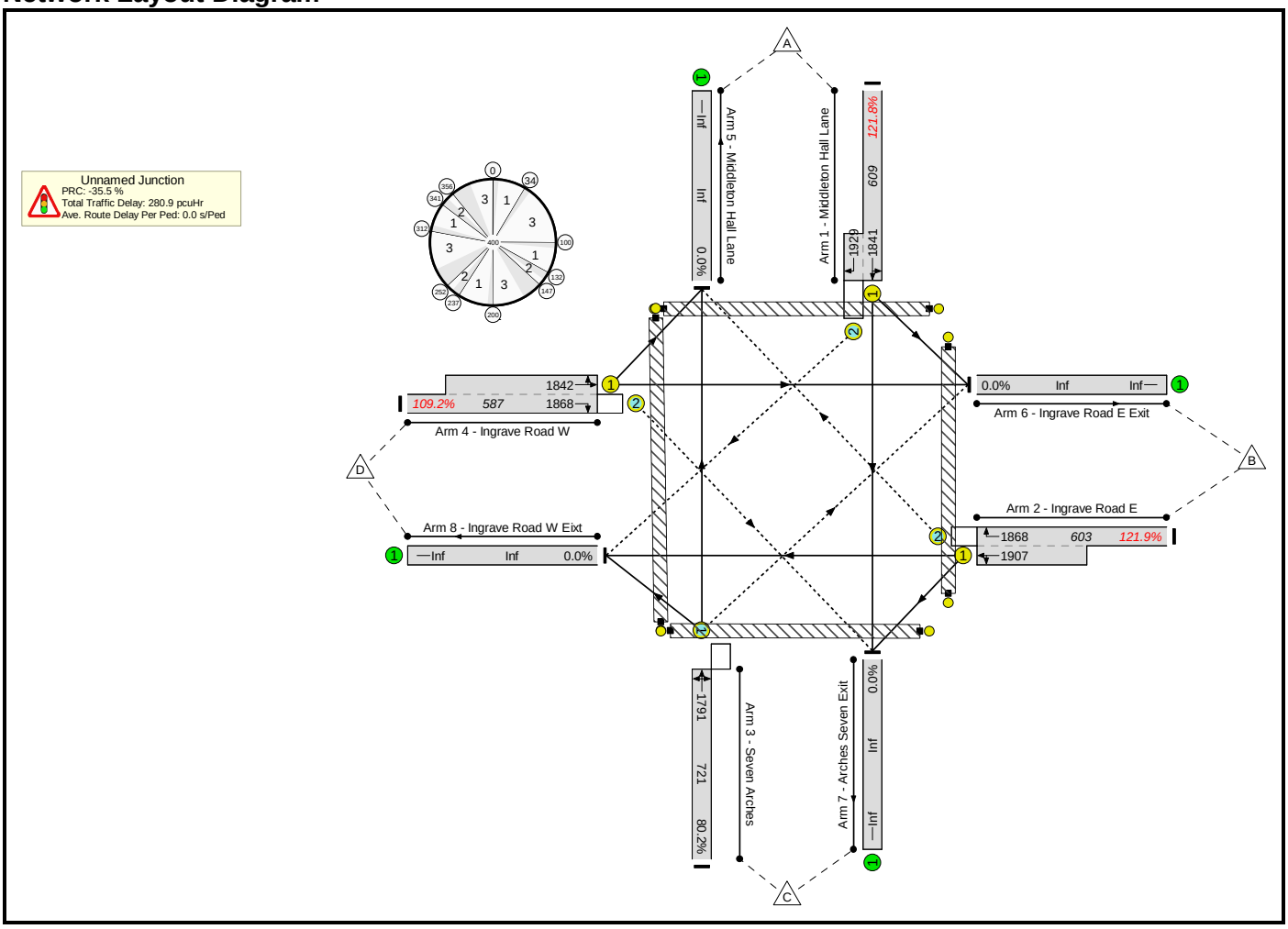
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		2	65	-	420	1833:1929	577	72.8%	48	0	36	7.0	59.8	14.2
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		2	114	-	629	1868:1909	946	66.5%	23	0	47	5.2	29.8	13.9
3/1	Seven Arches Ahead Right Left	O	D		2	65	-	455	1804	526	86.6%	23	0	11	10.0	79.5	20.9
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		2	112	-	915	1868:1846	960	95.3%	69	0	0	14.7	57.6	34.2
Ped Link: P1	Unnamed Ped Link	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -5.9 Total Delay for Signalled Lanes (pcuHr): 36.89 Cycle Time (s): 230
PRC Over All Lanes (%): -5.9 Total Delay Over All Lanes(pcuHr): 36.89

Basic Results Summary

Scenario 9: 'AM Option 3' (FG7: 'AM Option 2', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

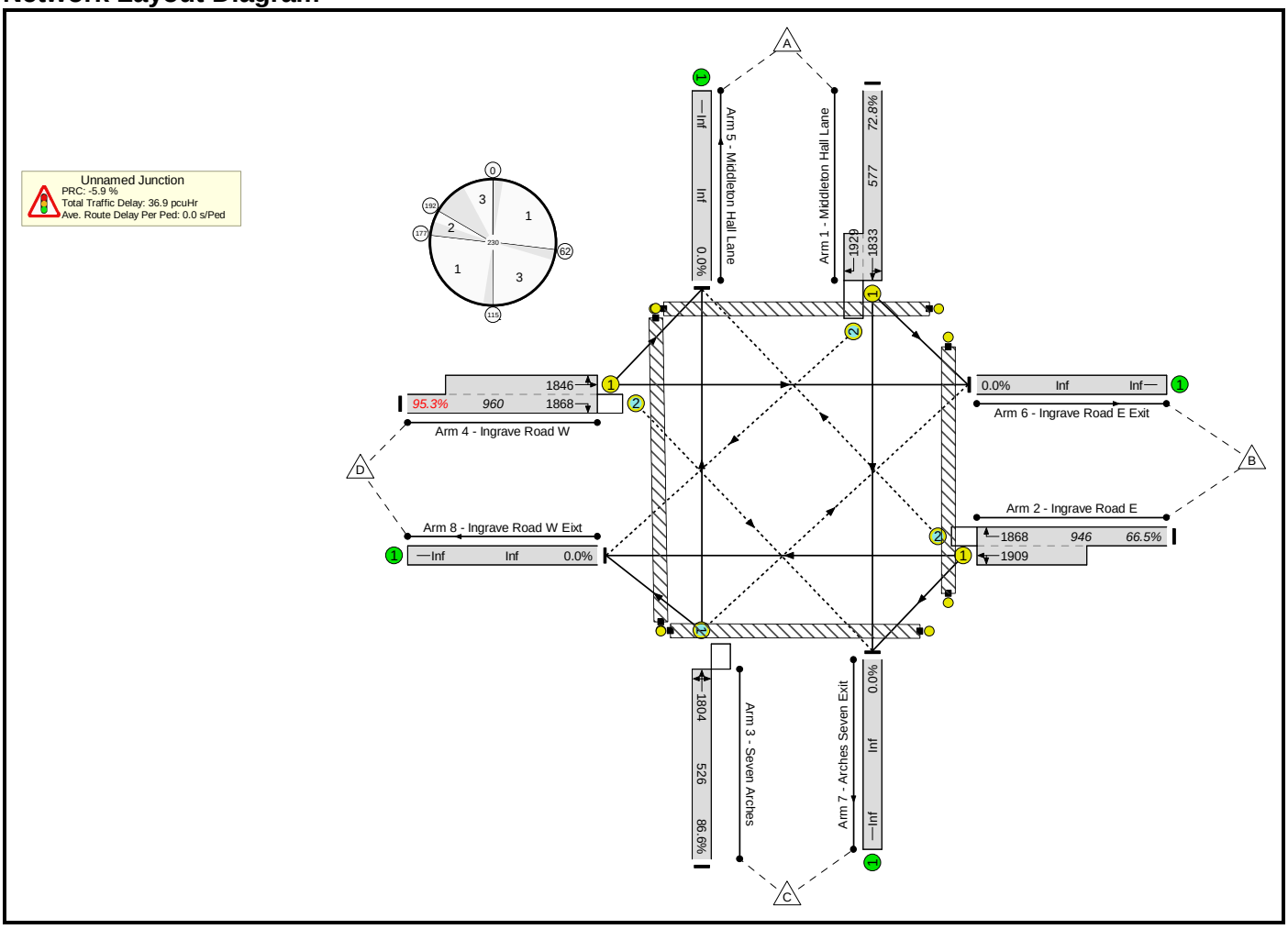
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		4	157	-	742	1841:1929	609	121.8%	89	0	94	110.9	537.9	127.7
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		4	112	-	735	1868:1907	603	121.9%	0	0	72	110.5	541.3	121.4
3/1	Seven Arches Ahead Right Left	O	D		4	157	-	578	1791	721	80.2%	21	0	9	6.7	41.7	18.7
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		4	108	-	641	1868:1842	587	109.2%	0	0	72	52.8	296.5	58.6
Ped Link: P1	Unnamed Ped Link	-	E		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		3	21	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.5 Total Delay for Signalled Lanes (pcuHr): 280.87 Cycle Time (s): 400
PRC Over All Lanes (%): -35.5 Total Delay Over All Lanes(pcuHr): 280.87

Basic Results Summary

Scenario 10: 'PM Option 3' (FG8: 'PM Option 2', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

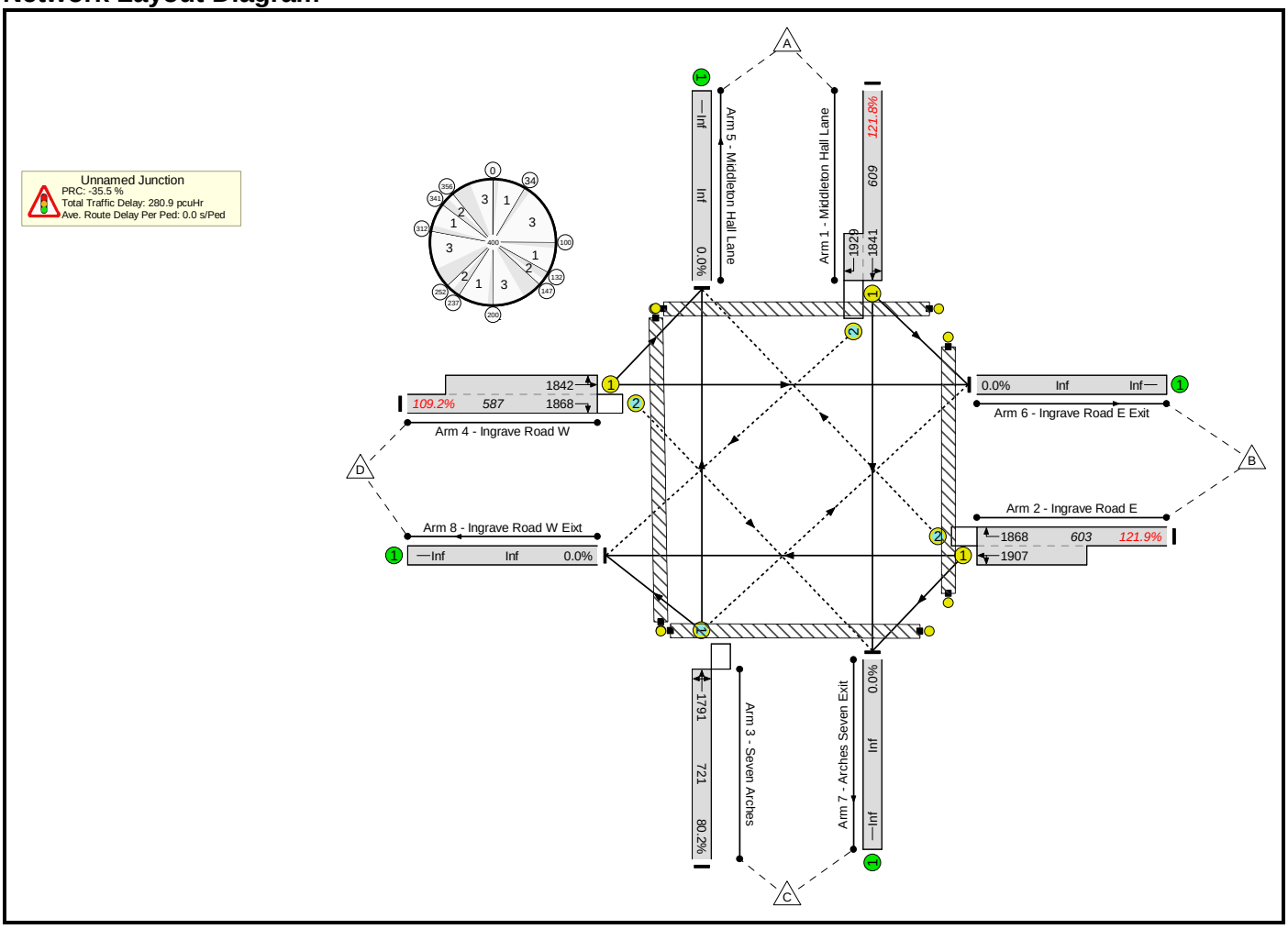
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		2	65	-	420	1833:1929	577	72.8%	48	0	36	7.0	59.8	14.2
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		2	114	-	629	1868:1909	946	66.5%	23	0	47	5.2	29.8	13.9
3/1	Seven Arches Ahead Right Left	O	D		2	65	-	455	1804	526	86.6%	23	0	11	10.0	79.5	20.9
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		2	112	-	915	1868:1846	960	95.3%	69	0	0	14.7	57.6	34.2
Ped Link: P1	Unnamed Ped Link	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -5.9 Total Delay for Signalled Lanes (pcuHr): 36.89 Cycle Time (s): 230
PRC Over All Lanes (%): -5.9 Total Delay Over All Lanes(pcuHr): 36.89

Basic Results Summary

Scenario 11: 'AM Option 4' (FG7: 'AM Option 2', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

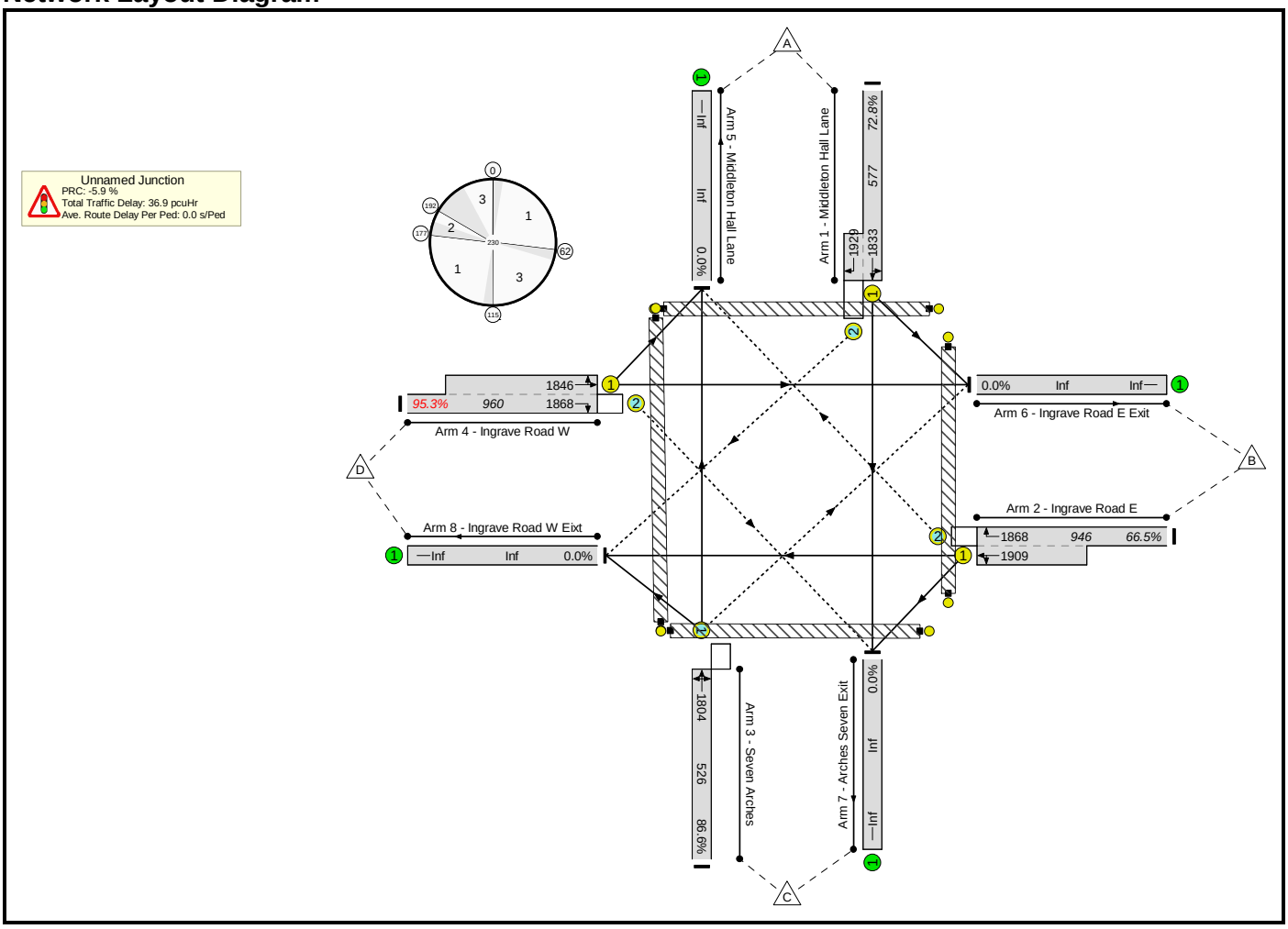
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**121.9%**	**110**	**0**	**248**	**280.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		4	157	-	742	1841:1929	609	121.8%	89	0	94	110.9	537.9	127.7
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		4	112	-	735	1868:1907	603	121.9%	0	0	72	110.5	541.3	121.4
3/1	Seven Arches Ahead Right Left	O	D		4	157	-	578	1791	721	80.2%	21	0	9	6.7	41.7	18.7
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		4	108	-	641	1868:1842	587	109.2%	0	0	72	52.8	296.5	58.6
Ped Link: P1	Unnamed Ped Link	-	E		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		3	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		3	21	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.5 Total Delay for Signalled Lanes (pcuHr): 280.87 Cycle Time (s): 400
PRC Over All Lanes (%): -35.5 Total Delay Over All Lanes(pcuHr): 280.87

Basic Results Summary

Scenario 12: 'PM Option 4' (FG8: 'PM Option 2', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**163**	**0**	**94**	**36.9**	**-**	**-**
1/1+1/2	Middleton Hall Lane Left Ahead Right	U+O	C		2	65	-	420	1833:1929	577	72.8%	48	0	36	7.0	59.8	14.2
2/2+2/1	Ingrave Road E Right Left Ahead	O+U	B		2	114	-	629	1868:1909	946	66.5%	23	0	47	5.2	29.8	13.9
3/1	Seven Arches Ahead Right Left	O	D		2	65	-	455	1804	526	86.6%	23	0	11	10.0	79.5	20.9
4/2+4/1	Ingrave Road W Left Ahead Right	O+U	A		2	112	-	915	1868:1846	960	95.3%	69	0	0	14.7	57.6	34.2
Ped Link: P1	Unnamed Ped Link	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	F		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -5.9 Total Delay for Signalled Lanes (pcuHr): 36.89 Cycle Time (s): 230
PRC Over All Lanes (%): -5.9 Total Delay Over All Lanes(pcuHr): 36.89

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 09 B185 Kings Road Road - B186 Queens Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 16:33:29

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	3.60	27.54	0.79	D	5.57	40.51	0.86	E
Arm B	0.80	6.23	0.45	A	0.69	5.90	0.41	A
Arm C	1.12	5.11	0.53	A	1.49	5.84	0.60	A
	A1 - Option 1							
Arm A	4.26	31.83	0.82	D	7.07	50.42	0.89	F
Arm B	0.93	6.74	0.48	A	0.72	5.99	0.42	A
Arm C	1.20	5.39	0.55	A	1.54	5.96	0.61	A
	A1 - Option 2							
Arm A	4.28	31.99	0.82	D	7.07	50.42	0.89	F
Arm B	0.94	6.76	0.48	A	0.71	5.96	0.42	A
Arm C	1.21	5.42	0.55	A	1.54	5.96	0.61	A
	A1 - Option 3							
Arm A	5.05	36.81	0.84	E	7.27	51.70	0.89	F
Arm B	0.96	6.98	0.49	A	0.72	6.02	0.42	A
Arm C	1.20	5.40	0.55	A	1.57	6.02	0.61	A
	A1 - Option 4							
Arm A	4.17	31.29	0.81	D	7.17	51.17	0.89	F
Arm B	0.93	6.75	0.48	A	0.72	5.99	0.42	A
Arm C	1.20	5.41	0.55	A	1.55	5.97	0.61	A

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 16:33:26

File summary

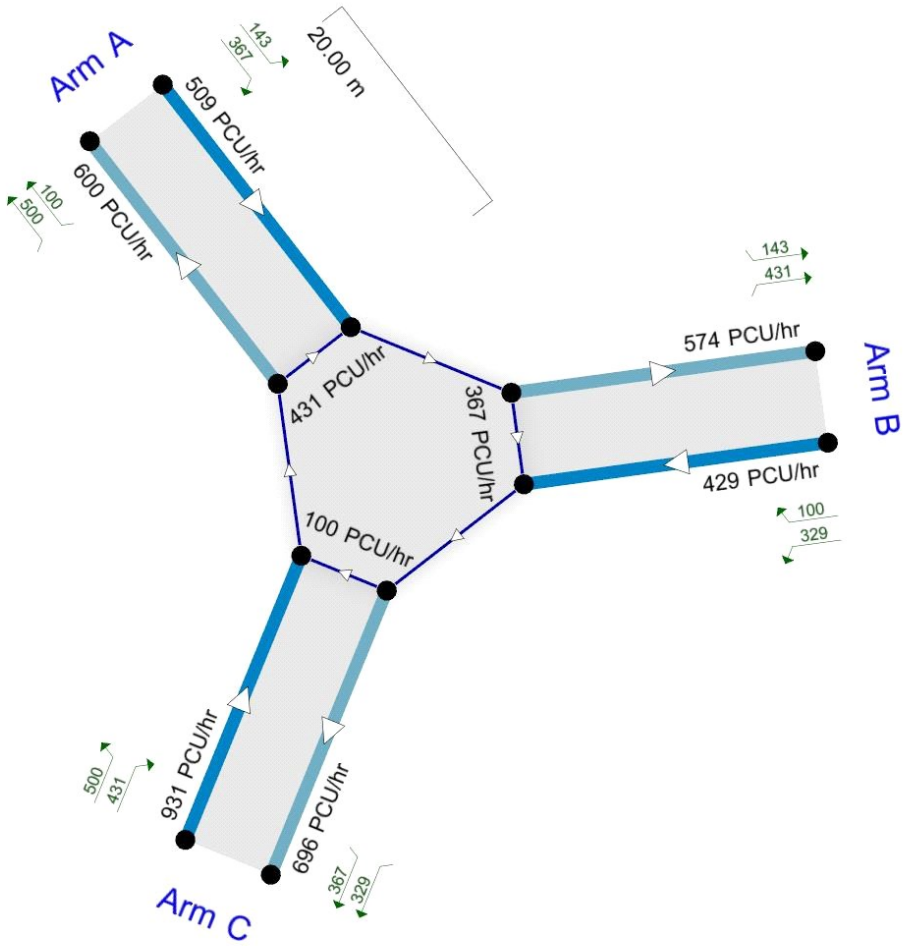
Title	B185 Kings Road - B186 Queens Road
Location	Brentwood
Site Number	09
Date	23/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	11.64	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	484.00	100.000
B	FLAT	✓	466.00	100.000
C	FLAT	✓	792.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	111.000	373.000
	B	140.000	0.000	326.000
	C	385.000	407.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.30	0.00	0.70
	C	0.49	0.51	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.79	27.54	3.60	D	484.00	484.00	198.96	24.66	3.32	199.59	24.74
B	0.45	6.23	0.80	A	466.00	466.00	47.22	6.08	0.79	47.23	6.08
C	0.53	5.11	1.12	A	792.00	792.00	66.30	5.02	1.10	66.32	5.02

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	484.00	121.00	470.93	521.90	404.72	0.00	615.01	461.68	0.787	0.00	3.27	23.257	C
B	466.00	116.50	462.87	512.72	362.92	0.00	1055.19	1063.47	0.442	0.00	0.78	6.047	A
C	792.00	198.00	787.56	686.74	139.06	0.00	1497.41	1297.52	0.529	0.00	1.11	5.041	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	484.00	121.00	483.14	524.96	406.98	0.00	613.68	461.68	0.789	3.27	3.48	27.157	D
B	466.00	116.50	465.93	517.79	372.34	0.00	1044.25	1063.47	0.446	0.78	0.80	6.224	A
C	792.00	198.00	791.97	698.29	139.98	0.00	1496.39	1297.52	0.529	1.11	1.12	5.110	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	484.00	121.00	483.69	524.99	406.99	0.00	613.68	461.68	0.789	3.48	3.56	27.432	D
B	466.00	116.50	465.99	517.92	372.76	0.00	1043.77	1063.47	0.446	0.80	0.80	6.230	A
C	792.00	198.00	791.99	698.75	140.00	0.00	1496.37	1297.52	0.529	1.12	1.12	5.110	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	484.00	121.00	483.84	525.00	407.00	0.00	613.67	461.68	0.789	3.56	3.60	27.535	D
B	466.00	116.50	465.99	517.96	372.87	0.00	1043.63	1063.47	0.447	0.80	0.80	6.231	A
C	792.00	198.00	792.00	698.87	140.00	0.00	1496.37	1297.52	0.529	1.12	1.12	5.110	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	41.34	2.76	23.257	C	C
B	11.26	0.75	6.047	A	A
C	16.00	1.07	5.041	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	50.96	3.40	27.157	D	C
B	11.90	0.79	6.224	A	A
C	16.71	1.11	5.110	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	52.90	3.53	27.432	D	C
B	12.01	0.80	6.230	A	A
C	16.78	1.12	5.110	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	53.75	3.58	27.535	D	C
B	12.04	0.80	6.231	A	A
C	16.81	1.12	5.110	A	A

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	15.46	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	517.00	100.000
B	FLAT	✓	425.00	100.000
C	FLAT	✓	923.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	136.000	381.000
	B	101.000	0.000	324.000
	C	498.000	425.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.24	0.00	0.76
	C	0.54	0.46	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.86	40.51	5.57	E	517.00	517.00	293.72	34.09	4.90	295.27	34.27
B	0.41	5.90	0.69	A	425.00	425.00	40.78	5.76	0.68	40.79	5.76
C	0.60	5.84	1.49	A	923.00	923.00	87.88	5.71	1.46	87.92	5.72

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	517.00	129.25	498.28	595.18	422.29	0.00	604.73	482.35	0.855	0.00	4.68	29.993	D
B	425.00	106.25	422.31	553.36	367.20	0.00	1050.22	1063.86	0.405	0.00	0.67	5.710	A
C	923.00	230.75	917.11	689.15	100.36	0.00	1540.28	1371.38	0.599	0.00	1.47	5.724	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	517.00	129.25	514.84	598.96	424.98	0.00	603.16	482.35	0.857	4.68	5.22	38.820	E
B	425.00	106.25	424.93	560.41	379.41	0.00	1036.04	1063.86	0.410	0.67	0.69	5.890	A
C	923.00	230.75	922.95	703.35	100.98	0.00	1539.59	1371.38	0.600	1.47	1.48	5.837	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	517.00	129.25	516.10	598.99	424.99	0.00	603.15	482.35	0.857	5.22	5.45	40.003	E
B	425.00	106.25	424.99	560.76	380.34	0.00	1034.96	1063.86	0.411	0.69	0.69	5.901	A
C	923.00	230.75	922.98	704.33	101.00	0.00	1539.57	1371.38	0.600	1.48	1.49	5.838	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	517.00	129.25	516.51	598.99	425.00	0.00	603.14	482.35	0.857	5.45	5.57	40.508	E
B	425.00	106.25	424.99	560.87	380.64	0.00	1034.61	1063.86	0.411	0.69	0.69	5.904	A
C	923.00	230.75	922.99	704.63	101.00	0.00	1539.57	1371.38	0.600	1.49	1.49	5.838	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	55.84	3.72	29.993	D	C
B	9.72	0.65	5.710	A	A
C	21.03	1.40	5.724	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	74.99	5.00	38.820	E	D
B	10.27	0.68	5.890	A	A
C	22.19	1.48	5.837	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	80.20	5.35	40.003	E	D
B	10.38	0.69	5.901	A	A
C	22.30	1.49	5.838	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	82.69	5.51	40.508	E	D
B	10.41	0.69	5.904	A	A
C	22.35	1.49	5.838	A	A

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	13.08	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	498.00	100.000
B	FLAT	✓	499.00	100.000
C	FLAT	✓	803.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	116.000	382.000
	B	163.000	0.000	336.000
	C	389.000	414.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.33	0.00	0.67
	C	0.48	0.52	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.82	31.83	4.26	D	498.00	498.00	231.61	27.91	3.86	232.51	28.01
B	0.48	6.74	0.93	A	499.00	499.00	54.45	6.55	0.91	54.48	6.55
C	0.55	5.39	1.20	A	803.00	803.00	70.79	5.29	1.18	70.81	5.29

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	482.92	548.53	411.56	0.00	611.01	469.20	0.815	0.00	3.77	25.726	D
B	499.00	124.75	495.40	524.04	370.43	0.00	1046.47	1058.69	0.477	0.00	0.90	6.492	A
C	803.00	200.75	798.26	704.01	161.83	0.00	1472.19	1268.35	0.545	0.00	1.18	5.305	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	496.77	551.95	413.98	0.00	609.59	469.20	0.817	3.77	4.08	31.139	D
B	499.00	124.75	498.90	529.69	381.05	0.00	1034.13	1058.69	0.483	0.90	0.92	6.723	A
C	803.00	200.75	802.96	716.99	162.97	0.00	1470.92	1268.35	0.546	1.18	1.19	5.389	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	497.53	551.99	413.99	0.00	609.58	469.20	0.817	4.08	4.20	31.633	D
B	499.00	124.75	498.98	529.88	381.64	0.00	1033.45	1058.69	0.483	0.92	0.93	6.735	A
C	803.00	200.75	802.99	717.63	162.99	0.00	1470.89	1268.35	0.546	1.19	1.20	5.389	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	497.75	551.99	414.00	0.00	609.58	469.20	0.817	4.20	4.26	31.825	D
B	499.00	124.75	498.99	529.94	381.81	0.00	1033.25	1058.69	0.483	0.93	0.93	6.737	A
C	803.00	200.75	802.99	717.80	163.00	0.00	1470.89	1268.35	0.546	1.20	1.20	5.389	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	46.67	3.11	25.726	D	C
B	12.90	0.86	6.492	A	A
C	17.03	1.14	5.305	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	59.32	3.95	31.139	D	C
B	13.74	0.92	6.723	A	A
C	17.85	1.19	5.389	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	62.17	4.14	31.633	D	C
B	13.89	0.93	6.735	A	A
C	17.93	1.20	5.389	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	63.46	4.23	31.825	D	C
B	13.93	0.93	6.737	A	A
C	17.96	1.20	5.389	A	A

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	18.42	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	532.00	100.000
B	FLAT	✓	432.00	100.000
C	FLAT	✓	936.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	149.000	383.000
	B	101.000	0.000	331.000
	C	504.000	432.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.23	0.00	0.77
	C	0.54	0.46	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.89	50.42	7.07	F	532.00	532.00	360.47	40.65	6.01	362.98	40.94
B	0.42	5.99	0.72	A	432.00	432.00	41.98	5.83	0.70	42.00	5.83
C	0.61	5.96	1.54	A	936.00	936.00	90.97	5.83	1.52	91.02	5.83

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	509.62	601.07	429.19	0.00	600.69	481.00	0.886	0.00	5.60	33.957	D
B	432.00	108.00	429.24	571.92	366.89	0.00	1050.59	1074.53	0.411	0.00	0.69	5.769	A
C	936.00	234.00	929.91	695.77	100.35	0.00	1540.29	1373.16	0.608	0.00	1.52	5.842	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	528.56	604.95	431.97	0.00	599.06	481.00	0.888	5.60	6.45	46.899	E
B	432.00	108.00	431.92	580.01	380.53	0.00	1034.74	1074.53	0.418	0.69	0.71	5.972	A
C	936.00	234.00	935.94	711.47	100.98	0.00	1539.59	1373.16	0.608	1.52	1.54	5.963	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	530.44	604.99	431.99	0.00	599.05	481.00	0.888	6.45	6.84	49.293	E
B	432.00	108.00	431.98	580.55	381.88	0.00	1033.17	1074.53	0.418	0.71	0.71	5.987	A
C	936.00	234.00	935.98	712.86	101.00	0.00	1539.58	1373.16	0.608	1.54	1.54	5.963	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	531.10	604.99	432.00	0.00	599.05	481.00	0.888	6.84	7.07	50.417	F
B	432.00	108.00	431.99	580.74	382.35	0.00	1032.62	1074.53	0.418	0.71	0.72	5.993	A
C	936.00	234.00	935.99	713.34	101.00	0.00	1539.57	1373.16	0.608	1.54	1.54	5.963	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	64.51	4.30	33.957	D	C
B	9.98	0.67	5.769	A	A
C	21.74	1.45	5.842	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	91.41	6.09	46.899	E	D
B	10.58	0.71	5.972	A	A
C	22.98	1.53	5.963	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	100.05	6.67	49.293	E	D
B	10.69	0.71	5.987	A	A
C	23.10	1.54	5.963	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	104.50	6.97	50.417	F	D
B	10.73	0.72	5.993	A	A
C	23.15	1.54	5.963	A	A

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	13.13	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	498.00	100.000
B	FLAT	✓	501.00	100.000
C	FLAT	✓	804.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	116.000	382.000
	B	165.000	0.000	336.000
	C	389.000	415.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.33	0.00	0.67
	C	0.48	0.52	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.82	31.99	4.28	D	498.00	498.00	232.61	28.02	3.88	233.51	28.13
B	0.48	6.76	0.94	A	501.00	501.00	54.86	6.57	0.91	54.89	6.57
C	0.55	5.42	1.21	A	804.00	804.00	71.21	5.31	1.19	71.24	5.32

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	482.86	550.50	412.54	0.00	610.43	469.66	0.816	0.00	3.79	25.815	D
B	501.00	125.25	497.38	525.01	370.39	0.00	1046.52	1058.28	0.479	0.00	0.91	6.513	A
C	804.00	201.00	799.23	703.96	163.81	0.00	1469.99	1265.35	0.547	0.00	1.19	5.331	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	496.75	553.95	414.98	0.00	609.00	469.66	0.818	3.79	4.10	31.287	D
B	501.00	125.25	500.90	530.69	381.04	0.00	1034.14	1058.28	0.484	0.91	0.93	6.749	A
C	804.00	201.00	803.96	716.98	164.97	0.00	1468.71	1265.35	0.547	1.19	1.20	5.415	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	497.52	553.99	414.99	0.00	609.00	469.66	0.818	4.10	4.22	31.790	D
B	501.00	125.25	500.98	530.88	381.63	0.00	1033.45	1058.28	0.485	0.93	0.93	6.760	A
C	804.00	201.00	803.99	717.62	164.99	0.00	1468.68	1265.35	0.547	1.20	1.20	5.415	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	498.00	124.50	497.75	553.99	415.00	0.00	608.99	469.66	0.818	4.22	4.28	31.985	D
B	501.00	125.25	500.99	530.94	381.81	0.00	1033.25	1058.28	0.485	0.93	0.94	6.762	A
C	804.00	201.00	803.99	717.80	165.00	0.00	1468.67	1265.35	0.547	1.20	1.21	5.415	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	46.82	3.12	25.815	D	C
B	12.99	0.87	6.513	A	A
C	17.13	1.14	5.331	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	59.57	3.97	31.287	D	C
B	13.84	0.92	6.749	A	A
C	17.96	1.20	5.415	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	62.45	4.16	31.790	D	C
B	13.99	0.93	6.760	A	A
C	18.04	1.20	5.415	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	63.76	4.25	31.985	D	C
B	14.04	0.94	6.762	A	A
C	18.07	1.20	5.415	A	A

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	18.43	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	532.00	100.000
B	FLAT	✓	429.00	100.000
C	FLAT	✓	936.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	149.000	383.000
	B	101.000	0.000	328.000
	C	504.000	432.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.24	0.00	0.76
	C	0.54	0.46	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.89	50.42	7.07	F	532.00	532.00	360.47	40.65	6.01	362.98	40.94
B	0.42	5.96	0.71	A	429.00	429.00	41.49	5.80	0.69	41.51	5.80
C	0.61	5.96	1.54	A	936.00	936.00	90.97	5.83	1.52	91.02	5.83

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	509.62	601.08	429.19	0.00	600.69	481.49	0.886	0.00	5.60	33.957	D
B	429.00	107.25	426.27	571.92	366.89	0.00	1050.59	1074.11	0.408	0.00	0.68	5.741	A
C	936.00	234.00	929.91	692.80	100.36	0.00	1540.28	1371.32	0.608	0.00	1.52	5.842	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	528.56	604.95	431.97	0.00	599.06	481.49	0.888	5.60	6.45	46.899	E
B	429.00	107.25	428.92	580.01	380.53	0.00	1034.74	1074.11	0.415	0.68	0.70	5.942	A
C	936.00	234.00	935.94	708.47	100.98	0.00	1539.59	1371.32	0.608	1.52	1.54	5.963	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	530.44	604.99	431.99	0.00	599.05	481.49	0.888	6.45	6.84	49.293	E
B	429.00	107.25	428.98	580.55	381.88	0.00	1033.17	1074.11	0.415	0.70	0.71	5.957	A
C	936.00	234.00	935.98	709.86	101.00	0.00	1539.58	1371.32	0.608	1.54	1.54	5.963	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	531.10	604.99	432.00	0.00	599.05	481.49	0.888	6.84	7.07	50.417	F
B	429.00	107.25	428.99	580.74	382.35	0.00	1032.62	1074.11	0.415	0.71	0.71	5.963	A
C	936.00	234.00	935.99	710.35	101.00	0.00	1539.57	1371.32	0.608	1.54	1.54	5.963	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	64.51	4.30	33.957	D	C
B	9.86	0.66	5.741	A	A
C	21.74	1.45	5.842	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	91.41	6.09	46.899	E	D
B	10.45	0.70	5.942	A	A
C	22.98	1.53	5.963	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	100.05	6.67	49.293	E	D
B	10.57	0.70	5.957	A	A
C	23.10	1.54	5.963	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	104.50	6.97	50.417	F	D
B	10.61	0.71	5.963	A	A
C	23.15	1.54	5.963	A	A

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	14.72	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	514.00	100.000
B	FLAT	✓	498.00	100.000
C	FLAT	✓	805.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	115.000	399.000
	B	162.000	0.000	336.000
	C	391.000	414.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.33	0.00	0.67
	C	0.49	0.51	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.84	36.81	5.05	E	514.00	514.00	269.88	31.50	4.50	271.14	31.65
B	0.49	6.98	0.96	A	498.00	498.00	56.16	6.77	0.94	56.18	6.77
C	0.55	5.40	1.20	A	805.00	805.00	71.05	5.30	1.18	71.08	5.30

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	514.00	128.50	496.63	549.49	411.55	0.00	611.01	469.14	0.841	0.00	4.34	28.261	D
B	498.00	124.50	494.30	522.67	385.52	0.00	1028.94	1053.74	0.484	0.00	0.92	6.689	A
C	805.00	201.25	800.24	719.02	160.80	0.00	1473.33	1271.72	0.546	0.00	1.19	5.312	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	514.00	128.50	512.25	552.94	413.98	0.00	609.59	469.14	0.843	4.34	4.78	35.612	E
B	498.00	124.50	497.89	528.59	397.64	0.00	1014.86	1053.74	0.491	0.92	0.95	6.961	A
C	805.00	201.25	804.96	733.56	161.96	0.00	1472.04	1271.72	0.547	1.19	1.20	5.396	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	514.00	128.50	513.29	552.99	413.99	0.00	609.58	469.14	0.843	4.78	4.96	36.463	E
B	498.00	124.50	497.98	528.84	398.45	0.00	1013.91	1053.74	0.491	0.95	0.96	6.977	A
C	805.00	201.25	804.99	734.44	161.99	0.00	1472.00	1271.72	0.547	1.20	1.20	5.396	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	514.00	128.50	513.62	552.99	414.00	0.00	609.58	469.14	0.843	4.96	5.05	36.813	E
B	498.00	124.50	497.99	528.91	398.70	0.00	1013.62	1053.74	0.491	0.96	0.96	6.981	A
C	805.00	201.25	804.99	734.70	162.00	0.00	1472.00	1271.72	0.547	1.20	1.20	5.396	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	52.54	3.50	28.261	D	C
B	13.25	0.88	6.689	A	A
C	17.10	1.14	5.312	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	69.03	4.60	35.612	E	D
B	14.17	0.94	6.961	A	A
C	17.92	1.19	5.396	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	73.18	4.88	36.463	E	D
B	14.34	0.96	6.977	A	A
C	18.00	1.20	5.396	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	75.13	5.01	36.813	E	D
B	14.40	0.96	6.981	A	A
C	18.03	1.20	5.396	A	A

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	18.80	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	534.00	100.000
B	FLAT	✓	432.00	100.000
C	FLAT	✓	942.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	149.000	385.000
	B	101.000	0.000	331.000
	C	510.000	432.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.23	0.00	0.77
	C	0.54	0.46	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.89	51.70	7.27	F	534.00	534.00	369.07	41.47	6.15	371.72	41.77
B	0.42	6.02	0.72	A	432.00	432.00	42.13	5.85	0.70	42.14	5.85
C	0.61	6.02	1.57	A	942.00	942.00	92.44	5.89	1.54	92.49	5.89

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	534.00	133.50	511.17	607.00	429.16	0.00	600.71	483.19	0.889	0.00	5.71	34.405	D
B	432.00	108.00	429.23	571.79	368.54	0.00	1048.67	1072.10	0.412	0.00	0.69	5.787	A
C	942.00	235.50	935.81	697.41	100.35	0.00	1540.29	1373.78	0.612	0.00	1.55	5.896	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	534.00	133.50	530.38	610.95	431.97	0.00	599.06	483.19	0.891	5.71	6.61	47.899	E
B	432.00	108.00	431.92	579.96	382.39	0.00	1032.57	1072.10	0.418	0.69	0.71	5.993	A
C	942.00	235.50	941.94	713.33	100.98	0.00	1539.59	1373.78	0.612	1.55	1.56	6.023	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	534.00	133.50	532.34	610.99	431.99	0.00	599.05	483.19	0.891	6.61	7.03	50.471	F
B	432.00	108.00	431.98	580.53	383.80	0.00	1030.93	1072.10	0.419	0.71	0.72	6.010	A
C	942.00	235.50	941.98	714.79	101.00	0.00	1539.58	1373.78	0.612	1.56	1.57	6.023	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	534.00	133.50	533.03	610.99	432.00	0.00	599.05	483.19	0.891	7.03	7.27	51.697	F
B	432.00	108.00	431.99	580.73	384.30	0.00	1030.35	1072.10	0.419	0.72	0.72	6.015	A
C	942.00	235.50	941.99	715.30	101.00	0.00	1539.57	1373.78	0.612	1.57	1.57	6.023	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	65.56	4.37	34.405	D	C
B	10.01	0.67	5.787	A	A
C	22.08	1.47	5.896	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	93.48	6.23	47.899	E	D
B	10.61	0.71	5.993	A	A
C	23.35	1.56	6.023	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	102.64	6.84	50.471	F	D
B	10.73	0.72	6.010	A	A
C	23.48	1.57	6.023	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	107.39	7.16	51.697	F	D
B	10.77	0.72	6.015	A	A
C	23.53	1.57	6.023	A	A

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	12.91	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	496.00	100.000
B	FLAT	✓	501.00	100.000
C	FLAT	✓	803.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	115.000	381.000
	B	165.000	0.000	336.000
	C	389.000	414.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.33	0.00	0.67
	C	0.48	0.52	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.81	31.29	4.17	D	496.00	496.00	227.41	27.51	3.79	228.26	27.61
B	0.48	6.75	0.93	A	501.00	501.00	54.76	6.56	0.91	54.79	6.56
C	0.55	5.41	1.20	A	803.00	803.00	71.01	5.31	1.18	71.04	5.31

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	496.00	124.00	481.18	550.51	411.55	0.00	611.01	470.01	0.812	0.00	3.71	25.433	D
B	501.00	125.25	497.38	523.11	369.61	0.00	1047.42	1057.39	0.478	0.00	0.90	6.502	A
C	803.00	200.75	798.25	703.19	163.81	0.00	1469.99	1265.68	0.546	0.00	1.19	5.323	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	496.00	124.00	494.82	553.95	413.98	0.00	609.59	470.01	0.814	3.71	4.00	30.649	D
B	501.00	125.25	500.90	528.71	380.09	0.00	1035.24	1057.39	0.484	0.90	0.93	6.735	A
C	803.00	200.75	802.96	716.03	164.97	0.00	1468.71	1265.68	0.547	1.19	1.20	5.407	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	496.00	124.00	495.55	553.99	413.99	0.00	609.58	470.01	0.814	4.00	4.11	31.111	D
B	501.00	125.25	500.98	528.89	380.65	0.00	1034.59	1057.39	0.484	0.93	0.93	6.745	A
C	803.00	200.75	802.99	716.64	164.99	0.00	1468.68	1265.68	0.547	1.20	1.20	5.407	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	496.00	124.00	495.76	553.99	414.00	0.00	609.58	470.01	0.814	4.11	4.17	31.290	D
B	501.00	125.25	500.99	528.94	380.82	0.00	1034.40	1057.39	0.484	0.93	0.93	6.748	A
C	803.00	200.75	802.99	716.81	165.00	0.00	1468.67	1265.68	0.547	1.20	1.20	5.407	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	46.00	3.07	25.433	D	C
B	12.97	0.86	6.502	A	A
C	17.09	1.14	5.323	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	58.24	3.88	30.649	D	C
B	13.81	0.92	6.735	A	A
C	17.91	1.19	5.407	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	60.97	4.06	31.111	D	C
B	13.96	0.93	6.745	A	A
C	17.99	1.20	5.407	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	62.19	4.15	31.290	D	C
B	14.01	0.93	6.748	A	A
C	18.02	1.20	5.407	A	A

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	18.63	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Kings Road N	
B	B	Queens Road	
C	C	Kings Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.20	3.20	5.90	8.66	17.81	9.80	0.00	
B	3.20	3.20	5.30	13.94	20.00	20.00	0.00	
C	3.80	3.80	7.80	17.12	20.00	19.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.585	851.809
B		(calculated)	(calculated)	1.162	1476.855
C		(calculated)	(calculated)	1.108	1651.460

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	532.00	100.000
B	FLAT	✓	432.00	100.000
C	FLAT	✓	937.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	149.000	383.000
	B	101.000	0.000	331.000
	C	503.000	434.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.23	0.00	0.77
	C	0.54	0.46	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.89	51.17	7.17	F	532.00	532.00	364.78	41.14	6.08	367.36	41.43
B	0.42	5.99	0.72	A	432.00	432.00	41.97	5.83	0.70	41.99	5.83
C	0.61	5.97	1.55	A	937.00	937.00	91.21	5.84	1.52	91.26	5.84

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	509.39	600.07	431.17	0.00	599.53	479.75	0.887	0.00	5.65	34.238	D
B	432.00	108.00	429.24	573.84	366.73	0.00	1050.77	1075.57	0.411	0.00	0.69	5.767	A
C	937.00	234.25	930.89	695.61	100.35	0.00	1540.29	1372.89	0.608	0.00	1.53	5.850	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	528.47	603.95	433.97	0.00	597.89	479.75	0.890	5.65	6.53	47.498	E
B	432.00	108.00	431.92	581.98	380.46	0.00	1034.82	1075.57	0.417	0.69	0.71	5.971	A
C	937.00	234.25	936.94	711.40	100.98	0.00	1539.59	1372.89	0.609	1.53	1.54	5.973	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	530.39	603.99	433.99	0.00	597.88	479.75	0.890	6.53	6.94	49.987	E
B	432.00	108.00	431.98	582.54	381.84	0.00	1033.22	1075.57	0.418	0.71	0.71	5.987	A
C	937.00	234.25	936.98	712.83	101.00	0.00	1539.58	1372.89	0.609	1.54	1.55	5.973	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	532.00	133.00	531.06	603.99	434.00	0.00	597.88	479.75	0.890	6.94	7.17	51.168	F
B	432.00	108.00	431.99	582.73	382.33	0.00	1032.65	1075.57	0.418	0.71	0.72	5.992	A
C	937.00	234.25	936.99	713.32	101.00	0.00	1539.57	1372.89	0.609	1.55	1.55	5.973	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	65.01	4.33	34.238	D	C
B	9.98	0.67	5.767	A	A
C	21.80	1.45	5.850	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	92.44	6.16	47.498	E	D
B	10.57	0.70	5.971	A	A
C	23.04	1.54	5.973	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	101.36	6.76	49.987	E	D
B	10.69	0.71	5.987	A	A
C	23.16	1.54	5.973	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	105.96	7.06	51.168	F	D
B	10.73	0.72	5.992	A	A
C	23.21	1.55	5.973	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 11 Weald Road - Western Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 16:40:10

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	0.65	8.14	0.39	A	0.35	7.91	0.26	A
Arm B	0.98	8.67	0.50	A	0.67	6.77	0.40	A
Arm C	0.90	7.09	0.48	A	2.39	12.66	0.71	B
	A1 - Option 1							
Arm A	0.66	8.20	0.40	A	0.38	8.38	0.28	A
Arm B	1.05	9.00	0.51	A	0.70	6.90	0.41	A
Arm C	0.93	7.17	0.48	A	2.97	14.90	0.75	B
	A1 - Option 2							
Arm A	0.66	8.20	0.40	A	0.38	8.37	0.28	A
Arm B	1.04	8.98	0.51	A	0.70	6.90	0.41	A
Arm C	0.93	7.17	0.48	A	2.96	14.84	0.75	B
	A1 - Option 3							
Arm A	0.65	8.22	0.40	A	0.48	10.24	0.32	B
Arm B	1.20	9.68	0.55	A	0.72	6.99	0.42	A
Arm C	0.95	7.26	0.49	A	7.60	33.04	0.89	D
	A1 - Option 4							
Arm A	0.65	8.19	0.40	A	0.39	8.41	0.28	A
Arm B	1.06	9.05	0.52	A	0.69	6.90	0.41	A
Arm C	0.94	7.22	0.48	A	2.91	14.66	0.75	B

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D6 - Option 1, PM" model duration: 17:00 - 18:00
"D7 - Option 2, AM" model duration: 08:00 - 09:00
"D8 - Option 2, PM" model duration: 17:00 - 18:00
"D9 - Option 3, AM" model duration: 08:00 - 09:00
"D10 - Option 3, PM" model duration: 17:00 - 18:00
"D11 - Option 4, AM" model duration: 08:00 - 09:00
"D12 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 16:40:07

File summary

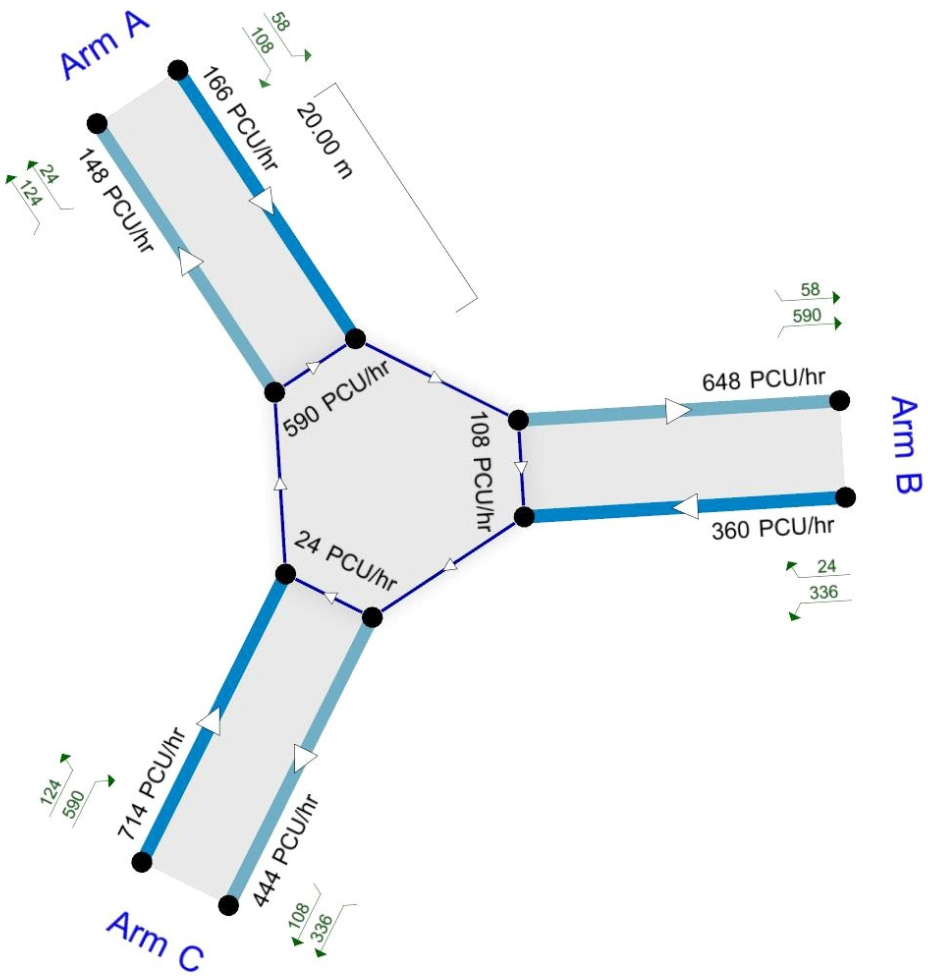
Title	Weald Road / Western Road
Location	Brentwood
Site Number	11
Date	14/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	Sblain
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	7.91	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	287.00	100.000
B	FLAT	✓	407.00	100.000
C	FLAT	✓	460.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	220.000
	B	28.000	0.000	379.000
	C	105.000	355.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.07	0.00	0.93
	C	0.23	0.77	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.39	8.14	0.65	A	287.00	287.00	38.09	7.96	0.63	38.11	7.97
B	0.50	8.67	0.98	A	407.00	407.00	57.33	8.45	0.96	57.36	8.46
C	0.48	7.09	0.90	A	460.00	460.00	53.26	6.95	0.89	53.28	6.95

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	287.00	71.75	284.45	131.92	352.25	0.00	730.88	521.11	0.393	0.00	0.64	8.019	A
B	407.00	101.75	403.16	418.65	218.05	0.00	823.27	720.95	0.494	0.00	0.96	8.494	A
C	460.00	115.00	456.43	593.47	27.74	0.00	967.90	954.56	0.475	0.00	0.89	6.993	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	287.00	71.75	286.97	132.99	354.98	0.00	729.39	521.11	0.393	0.64	0.64	8.135	A
B	407.00	101.75	406.96	421.97	219.98	0.00	822.18	720.95	0.495	0.96	0.97	8.669	A
C	460.00	115.00	459.97	598.94	28.00	0.00	967.74	954.56	0.475	0.89	0.90	7.089	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	287.00	71.75	286.99	133.00	354.99	0.00	729.38	521.11	0.393	0.64	0.65	8.137	A
B	407.00	101.75	406.99	421.99	219.99	0.00	822.17	720.95	0.495	0.97	0.97	8.670	A
C	460.00	115.00	459.99	598.98	28.00	0.00	967.74	954.56	0.475	0.90	0.90	7.089	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	287.00	71.75	287.00	133.00	355.00	0.00	729.38	521.11	0.393	0.65	0.65	8.137	A
B	407.00	101.75	406.99	422.00	220.00	0.00	822.17	720.95	0.495	0.97	0.98	8.670	A
C	460.00	115.00	460.00	598.99	28.00	0.00	967.74	954.56	0.475	0.90	0.90	7.089	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.12	0.61	8.019	A	A
B	13.62	0.91	8.494	A	A
C	12.77	0.85	6.993	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.62	0.64	8.135	A	A
B	14.50	0.97	8.669	A	A
C	13.45	0.90	7.089	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.67	0.64	8.137	A	A
B	14.59	0.97	8.670	A	A
C	13.51	0.90	7.089	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.69	0.65	8.137	A	A
B	14.62	0.97	8.670	A	A
C	13.53	0.90	7.089	A	A

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	10.28	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	162.00	100.000
B	FLAT	✓	355.00	100.000
C	FLAT	✓	686.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	57.000	105.000
	B	24.000	0.000	331.000
	C	125.000	561.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.35	0.65
	B	0.07	0.00	0.93
	C	0.18	0.82	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.26	7.91	0.35	A	162.00	162.00	20.93	7.75	0.35	20.93	7.75
B	0.40	6.77	0.67	A	355.00	355.00	39.32	6.65	0.66	39.34	6.65
C	0.71	12.66	2.39	B	686.00	686.00	137.71	12.04	2.30	137.88	12.06

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	162.00	40.50	160.60	147.14	553.46	0.00	621.09	497.70	0.261	0.00	0.35	7.795	A
B	355.00	88.75	352.37	609.97	104.10	0.00	887.54	764.31	0.400	0.00	0.66	6.695	A
C	686.00	171.50	676.78	432.64	23.82	0.00	970.28	953.30	0.707	0.00	2.31	11.920	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	162.00	40.50	161.98	148.96	560.83	0.00	617.07	497.70	0.263	0.35	0.35	7.910	A
B	355.00	88.75	354.98	617.82	104.99	0.00	887.03	764.31	0.400	0.66	0.66	6.765	A
C	686.00	171.50	685.79	435.97	24.00	0.00	970.18	953.30	0.707	2.31	2.36	12.632	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	162.00	40.50	162.00	148.99	560.94	0.00	617.00	497.70	0.263	0.35	0.35	7.911	A
B	355.00	88.75	354.99	617.94	105.00	0.00	887.03	764.31	0.400	0.66	0.66	6.765	A
C	686.00	171.50	685.93	435.99	24.00	0.00	970.18	953.30	0.707	2.36	2.38	12.650	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	162.00	40.50	162.00	148.99	560.97	0.00	616.99	497.70	0.263	0.35	0.35	7.912	A
B	355.00	88.75	355.00	617.97	105.00	0.00	887.03	764.31	0.400	0.66	0.67	6.765	A
C	686.00	171.50	685.96	436.00	24.00	0.00	970.18	953.30	0.707	2.38	2.39	12.657	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.02	0.33	7.795	A	A
B	9.47	0.63	6.695	A	A
C	31.40	2.09	11.920	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.28	0.35	7.910	A	A
B	9.92	0.66	6.765	A	A
C	35.06	2.34	12.632	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.31	0.35	7.911	A	A
B	9.96	0.66	6.765	A	A
C	35.53	2.37	12.650	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.32	0.35	7.912	A	A
B	9.97	0.66	6.765	A	A
C	35.72	2.38	12.657	B	B

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	8.08	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	289.00	100.000
B	FLAT	✓	421.00	100.000
C	FLAT	✓	466.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	222.000
	B	28.000	0.000	393.000
	C	108.000	358.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.07	0.00	0.93
	C	0.23	0.77	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.40	8.20	0.66	A	289.00	289.00	38.66	8.03	0.64	38.68	8.03
B	0.51	9.00	1.05	A	421.00	421.00	61.45	8.76	1.02	61.49	8.76
C	0.48	7.17	0.93	A	466.00	466.00	54.58	7.03	0.91	54.60	7.03

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	286.41	134.88	355.19	0.00	729.27	522.50	0.396	0.00	0.65	8.083	A
B	421.00	105.25	416.89	421.59	220.01	0.00	822.16	719.87	0.512	0.00	1.03	8.798	A
C	466.00	116.50	462.34	609.17	27.73	0.00	967.90	955.61	0.481	0.00	0.91	7.070	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	288.97	135.99	357.98	0.00	727.75	522.50	0.397	0.65	0.65	8.203	A
B	421.00	105.25	420.95	424.97	221.98	0.00	821.05	719.87	0.513	1.03	1.04	8.995	A
C	466.00	116.50	465.97	614.93	28.00	0.00	967.74	955.61	0.482	0.91	0.92	7.174	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	288.99	136.00	357.99	0.00	727.74	522.50	0.397	0.65	0.66	8.204	A
B	421.00	105.25	420.98	424.99	221.99	0.00	821.04	719.87	0.513	1.04	1.04	8.996	A
C	466.00	116.50	465.99	614.98	28.00	0.00	967.74	955.61	0.482	0.92	0.92	7.174	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	289.00	136.00	358.00	0.00	727.74	522.50	0.397	0.66	0.66	8.204	A
B	421.00	105.25	420.99	425.00	222.00	0.00	821.04	719.87	0.513	1.04	1.05	8.998	A
C	466.00	116.50	466.00	614.99	28.00	0.00	967.74	955.61	0.482	0.92	0.93	7.174	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.25	0.62	8.083	A	A
B	14.56	0.97	8.798	A	A
C	13.08	0.87	7.070	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.76	0.65	8.203	A	A
B	15.55	1.04	8.995	A	A
C	13.78	0.92	7.174	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.82	0.65	8.204	A	A
B	15.65	1.04	8.996	A	A
C	13.84	0.92	7.174	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.84	0.66	8.204	A	A
B	15.69	1.05	8.998	A	A
C	13.87	0.92	7.174	A	A

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	11.73	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	165.00	100.000
B	FLAT	✓	365.00	100.000
C	FLAT	✓	729.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	106.000
	B	24.000	0.000	341.000
	C	127.000	602.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.36	0.64
	B	0.07	0.00	0.93
	C	0.17	0.83	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.28	8.38	0.38	A	165.00	165.00	22.53	8.19	0.38	22.53	8.19
B	0.41	6.90	0.70	A	365.00	365.00	41.22	6.78	0.69	41.24	6.78
C	0.75	14.90	2.97	B	729.00	729.00	170.00	13.99	2.83	170.27	14.01

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	163.50	148.84	592.62	0.00	599.72	493.20	0.275	0.00	0.37	8.225	A
B	365.00	91.25	362.24	651.08	105.04	0.00	887.01	767.54	0.412	0.00	0.69	6.825	A
C	729.00	182.25	717.64	443.46	23.82	0.00	970.29	954.03	0.751	0.00	2.84	13.698	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	164.98	150.94	601.71	0.00	594.76	493.20	0.277	0.37	0.38	8.376	A
B	365.00	91.25	364.98	660.71	105.98	0.00	886.47	767.54	0.412	0.69	0.70	6.902	A
C	729.00	182.25	728.65	446.97	24.00	0.00	970.18	954.03	0.751	2.84	2.93	14.847	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	164.99	150.98	601.90	0.00	594.66	493.20	0.277	0.38	0.38	8.378	A
B	365.00	91.25	364.99	660.90	106.00	0.00	886.47	767.54	0.412	0.70	0.70	6.902	A
C	729.00	182.25	728.88	446.99	24.00	0.00	970.18	954.03	0.751	2.93	2.96	14.885	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	165.00	150.99	601.95	0.00	594.63	493.20	0.277	0.38	0.38	8.379	A
B	365.00	91.25	365.00	660.95	106.00	0.00	886.46	767.54	0.412	0.70	0.70	6.902	A
C	729.00	182.25	728.94	447.00	24.00	0.00	970.18	954.03	0.751	2.96	2.97	14.899	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.39	0.36	8.225	A	A
B	9.92	0.66	6.825	A	A
C	37.94	2.53	13.698	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.68	0.38	8.376	A	A
B	10.40	0.69	6.902	A	A
C	43.39	2.89	14.847	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.72	0.38	8.378	A	A
B	10.44	0.70	6.902	A	A
C	44.17	2.94	14.885	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.74	0.38	8.379	A	A
B	10.46	0.70	6.902	A	A
C	44.50	2.97	14.899	B	B

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	8.07	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	289.00	100.000
B	FLAT	✓	420.00	100.000
C	FLAT	✓	466.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	222.000
	B	28.000	0.000	392.000
	C	108.000	358.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.07	0.00	0.93
	C	0.23	0.77	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.40	8.20	0.66	A	289.00	289.00	38.66	8.03	0.64	38.68	8.03
B	0.51	8.98	1.04	A	420.00	420.00	61.16	8.74	1.02	61.20	8.74
C	0.48	7.17	0.93	A	466.00	466.00	54.58	7.03	0.91	54.60	7.03

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	286.41	134.88	355.19	0.00	729.27	522.53	0.396	0.00	0.65	8.083	A
B	420.00	105.00	415.90	421.59	220.01	0.00	822.16	719.86	0.511	0.00	1.02	8.776	A
C	466.00	116.50	462.34	608.19	27.73	0.00	967.90	955.54	0.481	0.00	0.91	7.070	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	288.97	135.99	357.98	0.00	727.75	522.53	0.397	0.65	0.65	8.203	A
B	420.00	105.00	419.95	424.97	221.98	0.00	821.05	719.86	0.512	1.02	1.04	8.972	A
C	466.00	116.50	465.97	613.93	28.00	0.00	967.74	955.54	0.482	0.91	0.92	7.174	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	288.99	136.00	357.99	0.00	727.74	522.53	0.397	0.65	0.66	8.204	A
B	420.00	105.00	419.98	424.99	221.99	0.00	821.04	719.86	0.512	1.04	1.04	8.974	A
C	466.00	116.50	465.99	613.98	28.00	0.00	967.74	955.54	0.482	0.92	0.92	7.174	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	289.00	72.25	289.00	136.00	358.00	0.00	727.74	522.53	0.397	0.66	0.66	8.204	A
B	420.00	105.00	419.99	425.00	222.00	0.00	821.04	719.86	0.512	1.04	1.04	8.976	A
C	466.00	116.50	466.00	613.99	28.00	0.00	967.74	955.54	0.482	0.92	0.93	7.174	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.25	0.62	8.083	A	A
B	14.50	0.97	8.776	A	A
C	13.08	0.87	7.070	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.76	0.65	8.203	A	A
B	15.47	1.03	8.972	A	A
C	13.78	0.92	7.174	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.82	0.65	8.204	A	A
B	15.57	1.04	8.974	A	A
C	13.84	0.92	7.174	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.84	0.66	8.204	A	A
B	15.61	1.04	8.976	A	A
C	13.87	0.92	7.174	A	A

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	11.69	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	165.00	100.000
B	FLAT	✓	365.00	100.000
C	FLAT	✓	728.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	106.000
	B	24.000	0.000	341.000
	C	127.000	601.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.36	0.64
	B	0.07	0.00	0.93
	C	0.17	0.83	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.28	8.37	0.38	A	165.00	165.00	22.50	8.18	0.37	22.51	8.18
B	0.41	6.90	0.70	A	365.00	365.00	41.22	6.78	0.69	41.24	6.78
C	0.75	14.84	2.96	B	728.00	728.00	169.13	13.94	2.82	169.40	13.96

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	163.50	148.85	591.67	0.00	600.24	493.33	0.275	0.00	0.37	8.216	A
B	365.00	91.25	362.24	650.13	105.04	0.00	887.01	767.50	0.412	0.00	0.69	6.825	A
C	728.00	182.00	716.70	443.46	23.82	0.00	970.29	954.04	0.750	0.00	2.83	13.650	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	164.98	150.94	600.72	0.00	595.30	493.33	0.277	0.37	0.38	8.365	A
B	365.00	91.25	364.98	659.71	105.98	0.00	886.47	767.50	0.412	0.69	0.70	6.902	A
C	728.00	182.00	727.66	446.97	24.00	0.00	970.18	954.04	0.750	2.83	2.91	14.788	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	164.99	150.98	600.90	0.00	595.20	493.33	0.277	0.38	0.38	8.367	A
B	365.00	91.25	364.99	659.90	106.00	0.00	886.47	767.50	0.412	0.70	0.70	6.902	A
C	728.00	182.00	727.88	446.99	24.00	0.00	970.18	954.04	0.750	2.91	2.94	14.823	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	165.00	41.25	165.00	150.99	600.95	0.00	595.17	493.33	0.277	0.38	0.38	8.368	A
B	365.00	91.25	365.00	659.95	106.00	0.00	886.46	767.50	0.412	0.70	0.70	6.902	A
C	728.00	182.00	727.94	447.00	24.00	0.00	970.18	954.04	0.750	2.94	2.96	14.838	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.38	0.36	8.216	A	A
B	9.92	0.66	6.825	A	A
C	37.77	2.52	13.650	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.67	0.38	8.365	A	A
B	10.40	0.69	6.902	A	A
C	43.17	2.88	14.788	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.72	0.38	8.367	A	A
B	10.44	0.70	6.902	A	A
C	43.93	2.93	14.823	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.73	0.38	8.368	A	A
B	10.46	0.70	6.902	A	A
C	44.26	2.95	14.838	B	B

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	8.39	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	288.00	100.000
B	FLAT	✓	450.00	100.000
C	FLAT	✓	472.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	221.000
	B	28.000	0.000	422.000
	C	111.000	361.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.06	0.00	0.94
	C	0.24	0.76	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.40	8.22	0.65	A	288.00	288.00	38.58	8.04	0.64	38.60	8.04
B	0.55	9.68	1.20	A	450.00	450.00	70.47	9.40	1.17	70.53	9.40
C	0.49	7.26	0.95	A	472.00	472.00	55.93	7.11	0.93	55.95	7.11

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	285.42	137.82	358.13	0.00	727.67	523.49	0.396	0.00	0.65	8.094	A
B	450.00	112.50	445.28	424.53	219.02	0.00	822.72	719.68	0.547	0.00	1.18	9.426	A
C	472.00	118.00	468.25	636.59	27.71	0.00	967.92	957.50	0.488	0.00	0.94	7.153	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	287.97	138.99	360.98	0.00	726.11	523.49	0.397	0.65	0.65	8.215	A
B	450.00	112.50	449.94	427.97	220.98	0.00	821.61	719.68	0.548	1.18	1.20	9.681	A
C	472.00	118.00	471.97	642.92	28.00	0.00	967.74	957.50	0.488	0.94	0.94	7.260	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	287.99	139.00	360.99	0.00	726.11	523.49	0.397	0.65	0.65	8.216	A
B	450.00	112.50	449.98	427.99	220.99	0.00	821.60	719.68	0.548	1.20	1.20	9.685	A
C	472.00	118.00	471.99	642.97	28.00	0.00	967.74	957.50	0.488	0.94	0.95	7.261	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	288.00	139.00	361.00	0.00	726.10	523.49	0.397	0.65	0.65	8.216	A
B	450.00	112.50	449.99	428.00	221.00	0.00	821.60	719.68	0.548	1.20	1.20	9.685	A
C	472.00	118.00	472.00	642.99	28.00	0.00	967.74	957.50	0.488	0.95	0.95	7.261	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.23	0.62	8.094	A	A
B	16.61	1.11	9.426	A	A
C	13.39	0.89	7.153	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.74	0.65	8.215	A	A
B	17.85	1.19	9.681	A	A
C	14.13	0.94	7.260	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.80	0.65	8.216	A	A
B	17.98	1.20	9.685	A	A
C	14.19	0.95	7.261	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.82	0.65	8.216	A	A
B	18.04	1.20	9.685	A	A
C	14.22	0.95	7.261	A	A

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	23.44	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	168.00	100.000
B	FLAT	✓	370.00	100.000
C	FLAT	✓	865.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	109.000
	B	24.000	0.000	346.000
	C	125.000	740.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.35	0.65
	B	0.06	0.00	0.94
	C	0.14	0.86	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.32	10.24	0.48	B	168.00	168.00	27.69	9.89	0.46	27.70	9.89
B	0.42	6.99	0.72	A	370.00	370.00	42.31	6.86	0.71	42.33	6.86
C	0.89	33.04	7.60	D	865.00	865.00	400.78	27.80	6.68	402.57	27.92

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	166.18	145.11	718.06	0.00	531.27	477.62	0.316	0.00	0.46	9.811	A
B	370.00	92.50	367.17	776.42	107.82	0.00	885.44	771.47	0.418	0.00	0.71	6.909	A
C	865.00	216.25	839.36	451.17	23.82	0.00	970.29	954.29	0.891	0.00	6.41	24.116	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	167.94	148.59	737.57	0.00	520.63	477.62	0.323	0.46	0.47	10.204	B
B	370.00	92.50	369.98	796.54	108.96	0.00	884.79	771.47	0.418	0.71	0.71	6.992	A
C	865.00	216.25	862.15	454.94	24.00	0.00	970.18	954.29	0.892	6.41	7.12	31.583	D

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	167.99	148.82	738.95	0.00	519.87	477.62	0.323	0.47	0.47	10.230	B
B	370.00	92.50	369.99	797.94	108.99	0.00	884.78	771.47	0.418	0.71	0.72	6.992	A
C	865.00	216.25	863.77	454.99	24.00	0.00	970.18	954.29	0.892	7.12	7.43	32.587	D

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	167.99	148.90	739.41	0.00	519.62	477.62	0.323	0.47	0.48	10.237	B
B	370.00	92.50	370.00	798.41	109.00	0.00	884.77	771.47	0.418	0.72	0.72	6.992	A
C	865.00	216.25	864.31	454.99	24.00	0.00	970.18	954.29	0.892	7.43	7.60	33.038	D

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.49	0.43	9.811	A	A
B	10.18	0.68	6.909	A	A
C	76.15	5.08	24.116	C	C

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.99	0.47	10.204	B	B
B	10.68	0.71	6.992	A	A
C	102.40	6.83	31.583	D	C

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.09	0.47	10.230	B	B
B	10.72	0.71	6.992	A	A
C	109.39	7.29	32.587	D	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.12	0.47	10.237	B	B
B	10.74	0.72	6.992	A	A
C	112.84	7.52	33.038	D	C

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	8.11	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	288.00	100.000
B	FLAT	✓	424.00	100.000
C	FLAT	✓	469.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	67.000	221.000
	B	28.000	0.000	396.000
	C	111.000	358.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.23	0.77
	B	0.07	0.00	0.93
	C	0.24	0.76	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.40	8.19	0.65	A	288.00	288.00	38.45	8.01	0.64	38.46	8.01
B	0.52	9.05	1.06	A	424.00	424.00	62.25	8.81	1.04	62.29	8.81
C	0.48	7.22	0.94	A	469.00	469.00	55.25	7.07	0.92	55.28	7.07

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	285.43	137.85	355.17	0.00	729.28	524.96	0.395	0.00	0.64	8.065	A
B	424.00	106.00	419.83	421.57	219.03	0.00	822.71	719.04	0.515	0.00	1.04	8.848	A
C	469.00	117.25	465.30	611.13	27.72	0.00	967.90	955.85	0.485	0.00	0.93	7.113	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	287.97	138.99	357.98	0.00	727.75	524.96	0.396	0.64	0.65	8.184	A
B	424.00	106.00	423.95	424.97	220.98	0.00	821.61	719.04	0.516	1.04	1.05	9.050	A
C	469.00	117.25	468.97	616.93	28.00	0.00	967.74	955.85	0.485	0.93	0.93	7.217	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	287.99	139.00	357.99	0.00	727.74	524.96	0.396	0.65	0.65	8.186	A
B	424.00	106.00	423.98	424.99	220.99	0.00	821.60	719.04	0.516	1.05	1.06	9.052	A
C	469.00	117.25	468.99	616.98	28.00	0.00	967.74	955.85	0.485	0.93	0.94	7.217	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	288.00	72.00	288.00	139.00	358.00	0.00	727.74	524.96	0.396	0.65	0.65	8.186	A
B	424.00	106.00	423.99	425.00	221.00	0.00	821.60	719.04	0.516	1.06	1.06	9.053	A
C	469.00	117.25	469.00	616.99	28.00	0.00	967.74	955.85	0.485	0.94	0.94	7.217	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.20	0.61	8.065	A	A
B	14.75	0.98	8.848	A	A
C	13.24	0.88	7.113	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.71	0.65	8.184	A	A
B	15.75	1.05	9.050	A	A
C	13.95	0.93	7.217	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.76	0.65	8.186	A	A
B	15.86	1.06	9.052	A	A
C	14.02	0.93	7.217	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.78	0.65	8.186	A	A
B	15.90	1.06	9.053	A	A
C	14.04	0.94	7.217	A	A

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	11.58	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Weald Road N	
B	B	Western Road	
C	C	Weald Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.00	3.00	4.80	4.33	8.88	9.50	0.00	
B	3.60	3.60	4.40	7.21	9.64	5.90	0.00	
C	3.90	3.90	4.10	3.65	10.38	15.20	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.546	923.082
B		(calculated)	(calculated)	0.564	946.249
C		(calculated)	(calculated)	0.610	984.812

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	168.00	100.000
B	FLAT	✓	363.00	100.000
C	FLAT	✓	725.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	109.000
	B	24.000	0.000	339.000
	C	126.000	599.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.35	0.65
	B	0.07	0.00	0.93
	C	0.17	0.83	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.28	8.41	0.39	A	168.00	168.00	23.01	8.22	0.38	23.01	8.22
B	0.41	6.90	0.69	A	363.00	363.00	40.97	6.77	0.68	40.99	6.78
C	0.75	14.66	2.91	B	725.00	725.00	166.57	13.79	2.78	166.83	13.81

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	166.47	147.88	589.80	0.00	601.26	493.03	0.279	0.00	0.38	8.252	A
B	363.00	90.75	360.26	648.26	108.01	0.00	885.33	765.83	0.410	0.00	0.69	6.821	A
C	725.00	181.25	713.86	444.44	23.82	0.00	970.29	953.93	0.747	0.00	2.78	13.511	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	167.98	149.94	598.73	0.00	596.39	493.03	0.282	0.38	0.39	8.403	A
B	363.00	90.75	362.98	657.72	108.98	0.00	884.78	765.83	0.410	0.69	0.69	6.898	A
C	725.00	181.25	724.67	447.97	24.00	0.00	970.18	953.93	0.747	2.78	2.87	14.610	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	167.99	149.98	598.90	0.00	596.29	493.03	0.282	0.39	0.39	8.405	A
B	363.00	90.75	362.99	657.90	109.00	0.00	884.77	765.83	0.410	0.69	0.69	6.898	A
C	725.00	181.25	724.88	447.99	24.00	0.00	970.18	953.93	0.747	2.87	2.90	14.645	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	168.00	42.00	168.00	149.99	598.95	0.00	596.26	493.03	0.282	0.39	0.39	8.405	A
B	363.00	90.75	363.00	657.95	109.00	0.00	884.77	765.83	0.410	0.69	0.69	6.898	A
C	725.00	181.25	724.94	448.00	24.00	0.00	970.18	953.93	0.747	2.90	2.91	14.656	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.50	0.37	8.252	A	A
B	9.86	0.66	6.821	A	A
C	37.26	2.48	13.511	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.80	0.39	8.403	A	A
B	10.34	0.69	6.898	A	A
C	42.51	2.83	14.610	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.84	0.39	8.405	A	A
B	10.38	0.69	6.898	A	A
C	43.24	2.88	14.645	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.86	0.39	8.405	A	A
B	10.40	0.69	6.898	A	A
C	43.56	2.90	14.656	B	B

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 12 Western Road - William Hunter Way Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 16:50:54

« (Default Analysis Set) - Option 4, PM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Pedestrian Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	1.84	13.62	0.65	B	0.62	8.11	0.38	A
Arm B	0.19	7.45	0.16	A	0.55	8.54	0.36	A
Arm C	0.78	6.74	0.44	A	2.24	12.85	0.69	B
	A1 - Option 1							
Arm A	1.93	14.05	0.66	B	0.63	8.22	0.39	A
Arm B	0.21	7.59	0.17	A	0.60	8.81	0.37	A
Arm C	0.79	6.79	0.44	A	2.83	15.28	0.74	C
	A1 - Option 2							
Arm A	1.93	14.05	0.66	B	0.63	8.20	0.39	A
Arm B	0.20	7.58	0.17	A	0.60	8.79	0.37	A
Arm C	0.79	6.79	0.44	A	2.83	15.28	0.74	C
	A1 - Option 3							
Arm A	2.30	15.83	0.70	C	0.65	8.33	0.40	A
Arm B	0.21	7.86	0.18	A	0.59	8.81	0.37	A
Arm C	0.80	6.82	0.44	A	7.65	35.37	0.89	E
	A1 - Option 4							
Arm A	1.96	14.21	0.67	B	0.63	8.20	0.39	A
Arm B	0.21	7.62	0.17	A	0.58	8.73	0.37	A
Arm C	0.79	6.78	0.44	A	2.78	15.05	0.74	C

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

"D1 - Baseline, AM" model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM " model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 16:50:53

File summary

Title	Western Road - William hunter Way
Location	
Site Number	12
Date	02/10/2015
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
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			N/A	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	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Arm B - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Arm C - Zebra Details	Pedestrian crossing uses default flow of 0. Is this correct?

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Mini-roundabout	A,B,C	12.18	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Arm	Name	Description
A	A	Western Road N	
B	B	William Hunter Way	
C	C	Western Road S	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.70	3.70	0.00	10.07	7.70	0.00	
B	3.40	3.40	3.80	6.80	9.76	7.40	0.00	
C	3.60	3.60	4.30	2.40	15.26	15.20	0.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	Zebra
C	Zebra

Zebra Crossings

Arm	Space between crossing and junction entry (PCU)	Vehicles queueing on exit (PCU)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B	1.00	1.00		Distance	7.80	5.57				
C	4.60	5.00	✓	Distance			3.00	2.14	2.80	2.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.540	849.004
B		(calculated)	(calculated)	0.542	762.681
C		(calculated)	(calculated)	0.604	959.937

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	277.00	100.000
B	FLAT	✓	242.00	100.000
C	FLAT	✓	674.00	100.000

Pedestrian Flows

General Flows Data

Arm	Profile Type	Average Pedestrian Flow (Ped/hr)
A	-	-
B	FLAT	0.00
C	FLAT	0.00

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	77.000	200.000
	B	78.000	0.000	164.000
	C	428.000	246.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.28	0.72
	B	0.32	0.00	0.68
	C	0.64	0.36	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.39	8.20	0.63	A	277.00	277.00	37.02	8.02	0.62	37.03	8.02
B	0.37	8.73	0.58	A	242.00	242.00	34.45	8.54	0.57	34.47	8.55
C	0.74	15.05	2.78	C	674.00	674.00	158.96	14.15	2.65	159.22	14.17

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	277.00	69.25	274.53	498.51	242.12	0.00	718.20	678.82	0.386	0.00	0.62	8.064	A
B	242.00	60.50	239.69	318.44	198.21	0.00	655.27	497.09	0.369	0.00	0.58	8.617	A
C	674.00	168.50	663.38	360.65	77.26	0.00	913.24	863.09	0.738	0.00	2.66	13.881	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	277.00	69.25	276.97	505.79	245.88	0.00	716.17	678.82	0.387	0.62	0.63	8.195	A
B	242.00	60.50	241.98	322.87	199.98	0.00	654.31	497.09	0.370	0.58	0.58	8.730	A
C	674.00	168.50	673.68	363.97	77.99	0.00	912.79	863.09	0.738	2.66	2.74	15.001	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	277.00	69.25	276.99	505.93	245.96	0.00	716.13	678.82	0.387	0.63	0.63	8.197	A
B	242.00	60.50	241.99	322.96	199.99	0.00	654.31	497.09	0.370	0.58	0.58	8.731	A
C	674.00	168.50	673.89	363.99	78.00	0.00	912.79	863.09	0.738	2.74	2.76	15.036	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	277.00	69.25	277.00	505.96	245.98	0.00	716.12	678.82	0.387	0.63	0.63	8.197	A
B	242.00	60.50	242.00	322.98	200.00	0.00	654.30	497.09	0.370	0.58	0.58	8.731	A
C	674.00	168.50	673.94	364.00	78.00	0.00	912.79	863.09	0.738	2.76	2.78	15.051	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.86	0.59	8.064	A	A
B	8.24	0.55	8.617	A	A
C	35.55	2.37	13.881	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.35	0.62	8.195	A	A
B	8.70	0.58	8.730	A	A
C	40.56	2.70	15.001	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.40	0.63	8.197	A	A
B	8.75	0.58	8.731	A	A
C	41.27	2.75	15.036	C	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.42	0.63	8.197	A	A
B	8.76	0.58	8.731	A	A
C	41.58	2.77	15.051	C	B

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 13 A127 - A128 Brentwood Road - A128 Tilbury Road Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 17:08:35

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Arm A	0.90	3.56	0.48	A	0.78	3.68	0.44	A
Arm B	1.67	6.17	0.63	A	2.57	8.38	0.72	A
Arm C	0.66	2.56	0.40	A	0.78	2.78	0.44	A
Arm D	0.79	4.89	0.44	A	1.14	6.56	0.53	A
	A1 - Option 1							
Arm A	2.10	7.80	0.68	A	2.63	11.15	0.73	B
Arm B	4.66	14.53	0.83	B	282.47	773.96	1.25	F
Arm C	2.64	5.95	0.73	A	1.39	3.70	0.58	A
Arm D	5.16	23.69	0.84	C	27.63	96.12	0.99	F
	A1 - Option 2							
Arm A	2.10	7.83	0.68	A	2.54	10.69	0.72	B
Arm B	4.99	16.07	0.84	C	235.95	648.44	1.21	F
Arm C	1.67	4.30	0.63	A	1.14	3.33	0.53	A
Arm D	5.83	24.95	0.86	C	30.00	103.31	1.00	F
	A1 - Option 3							
Arm A	1.30	4.73	0.57	A	1.03	4.65	0.51	A
Arm B	2.49	8.24	0.72	A	6.37	18.17	0.87	C
Arm C	0.84	3.01	0.46	A	0.98	3.41	0.50	A
Arm D	1.32	6.61	0.57	A	2.43	11.17	0.71	B
	A1 - Option 4							
Arm A	1.35	4.84	0.58	A	1.04	4.67	0.51	A
Arm B	2.54	8.39	0.72	A	6.88	19.50	0.88	C
Arm C	0.84	3.02	0.46	A	1.00	3.47	0.50	A
Arm D	1.33	6.63	0.57	A	2.55	11.74	0.72	B

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 17:08:32

File summary

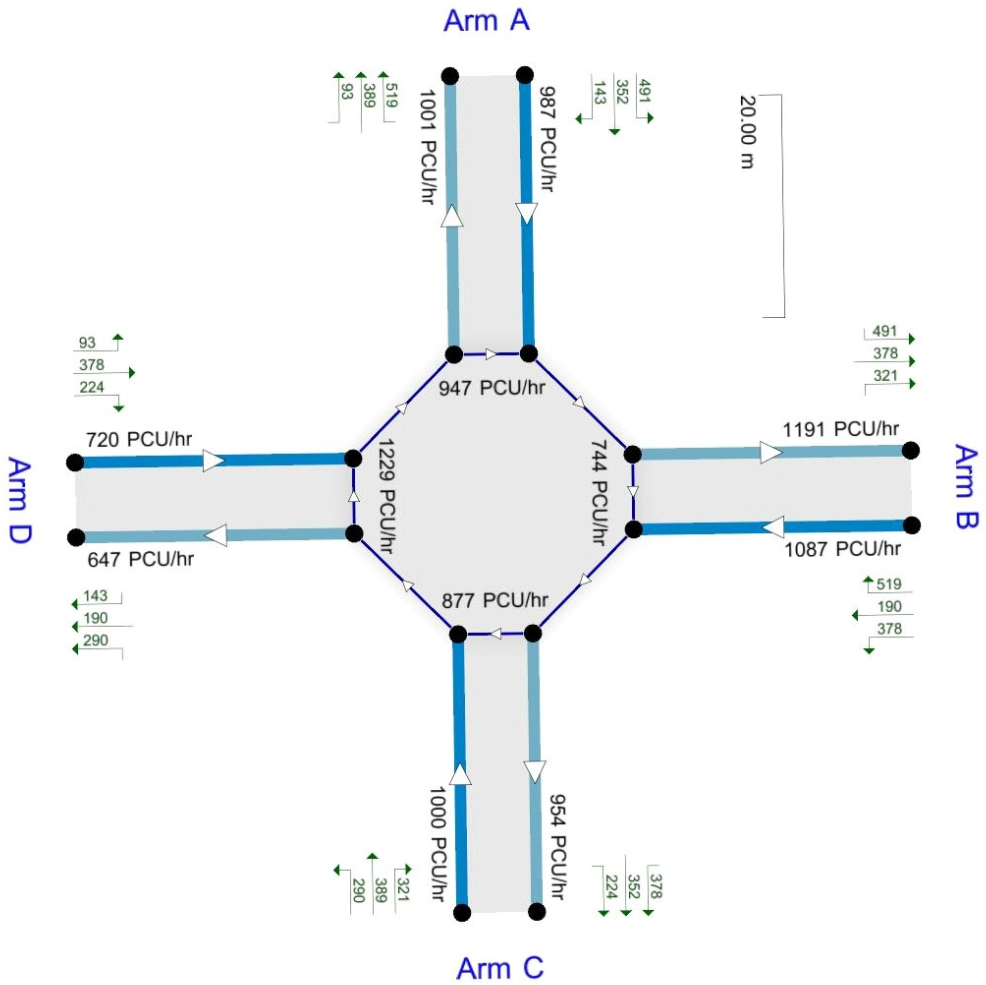
Title	A127 - A128 Brentwood Road - A128 Tilbury Road
Location	Brentwood
Site Number	13
Date	05/09/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

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	✓	✓		4.26	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	284.00	55.31
B	340.00	138.64
C	445.00	46.99
D	622.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.068	2771.040
B		(calculated)	(calculated)	0.968	2257.709
C		(calculated)	(calculated)	1.155	3219.831
D		(calculated)	(calculated)	0.997	2501.886

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	917.00	100.000
B	FLAT	✓	977.00	100.000
C	FLAT	✓	932.00	100.000
D	FLAT	✓	585.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	436.000	341.000	140.000
	B	518.000	0.000	377.000	82.000
	C	371.000	296.000	0.000	265.000
	D	92.000	253.000	216.000	24.000

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

		To			
		A	B	C	D
From	A	0.00	0.48	0.37	0.15
	B	0.53	0.00	0.39	0.08
	C	0.40	0.32	0.00	0.28
	D	0.16	0.43	0.37	0.04

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.48	3.56	0.90	A	917.00	917.00	53.70	3.51	0.90	53.72	3.51
B	0.63	6.17	1.67	A	977.00	977.00	98.01	6.02	1.63	98.07	6.02
C	0.40	2.56	0.66	A	932.00	932.00	39.42	2.54	0.66	39.43	2.54
D	0.44	4.89	0.79	A	585.00	585.00	46.90	4.81	0.78	46.92	4.81

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	917.00	229.25	913.41	975.99	785.53	0.00	1932.08	1716.24	0.475	0.00	0.90	3.523	A
B	977.00	244.25	970.45	981.11	717.84	0.00	1563.00	1224.80	0.625	0.00	1.64	6.010	A
C	932.00	233.00	929.37	928.98	759.30	0.00	2342.80	2029.08	0.398	0.00	0.66	2.543	A
D	585.00	146.25	581.87	509.03	1179.64	0.00	1326.09	407.21	0.441	0.00	0.78	4.817	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	917.00	229.25	916.98	980.94	788.97	0.00	1928.41	1716.24	0.476	0.90	0.90	3.558	A
B	977.00	244.25	976.92	984.97	720.97	0.00	1559.96	1224.80	0.626	1.64	1.66	6.172	A
C	932.00	233.00	931.99	933.95	763.94	0.00	2337.44	2029.08	0.399	0.66	0.66	2.560	A
D	585.00	146.25	584.97	510.98	1184.94	0.00	1320.80	407.21	0.443	0.78	0.79	4.892	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	917.00	229.25	916.99	980.98	788.99	0.00	1928.38	1716.24	0.476	0.90	0.90	3.558	A
B	977.00	244.25	976.98	984.99	720.99	0.00	1559.95	1224.80	0.626	1.66	1.66	6.174	A
C	932.00	233.00	932.00	933.99	763.98	0.00	2337.39	2029.08	0.399	0.66	0.66	2.561	A
D	585.00	146.25	584.99	511.00	1184.98	0.00	1320.76	407.21	0.443	0.79	0.79	4.892	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	917.00	229.25	917.00	980.99	789.00	0.00	1928.38	1716.24	0.476	0.90	0.90	3.558	A
B	977.00	244.25	976.99	985.00	721.00	0.00	1559.94	1224.80	0.626	1.66	1.67	6.174	A
C	932.00	233.00	932.00	933.99	763.99	0.00	2337.38	2029.08	0.399	0.66	0.66	2.561	A
D	585.00	146.25	585.00	511.00	1184.99	0.00	1320.76	407.21	0.443	0.79	0.79	4.892	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.08	0.87	3.523	A	A
B	23.31	1.55	6.010	A	A
C	9.67	0.64	2.543	A	A
D	11.33	0.76	4.817	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.51	0.90	3.558	A	A
B	24.77	1.65	6.172	A	A
C	9.90	0.66	2.560	A	A
D	11.81	0.79	4.892	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.55	0.90	3.558	A	A
B	24.94	1.66	6.174	A	A
C	9.92	0.66	2.561	A	A
D	11.87	0.79	4.892	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.57	0.90	3.558	A	A
B	25.00	1.67	6.174	A	A
C	9.93	0.66	2.561	A	A
D	11.89	0.79	4.892	A	A

(Default Analysis Set) - Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

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	✓	✓		5.42	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	410.00	55.31
B	363.00	138.64
C	419.00	46.99
D	670.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.043	2741.808
B		(calculated)	(calculated)	0.964	2252.373
C		(calculated)	(calculated)	1.161	3225.863
D		(calculated)	(calculated)	0.987	2490.750

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	768.00	100.000
B	FLAT	✓	1111.00	100.000
C	FLAT	✓	1008.00	100.000
D	FLAT	✓	631.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	411.000	287.000	70.000
	B	482.000	0.000	417.000	212.000
	C	410.000	436.000	0.000	162.000
	D	112.000	137.000	351.000	31.000

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

		To			
		A	B	C	D
From	A	0.00	0.54	0.37	0.09
	B	0.43	0.00	0.38	0.19
	C	0.41	0.43	0.00	0.16
	D	0.18	0.22	0.56	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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.44	3.68	0.78	A	768.00	768.00	46.49	3.63	0.77	46.50	3.63
B	0.72	8.38	2.57	A	1111.00	1111.00	148.99	8.05	2.48	149.12	8.05
C	0.44	2.78	0.78	A	1008.00	1008.00	46.19	2.75	0.77	46.20	2.75
D	0.53	6.56	1.14	A	631.00	631.00	67.24	6.39	1.12	67.27	6.40

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	768.00	192.00	764.90	997.64	949.99	0.00	1751.33	1643.87	0.439	0.00	0.78	3.640	A
B	1111.00	277.75	1101.06	980.04	734.85	0.00	1544.32	1392.09	0.719	0.00	2.48	7.953	A
C	1008.00	252.00	1004.92	1047.62	788.29	0.00	2310.74	2030.31	0.436	0.00	0.77	2.753	A
D	631.00	157.75	626.53	472.11	1321.11	0.00	1186.70	212.59	0.532	0.00	1.12	6.387	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	768.00	192.00	767.98	1003.88	954.93	0.00	1746.18	1643.87	0.440	0.78	0.78	3.679	A
B	1111.00	277.75	1110.77	983.96	738.94	0.00	1540.38	1392.09	0.721	2.48	2.54	8.369	A
C	1008.00	252.00	1007.98	1054.86	794.85	0.00	2303.13	2030.31	0.438	0.77	0.78	2.779	A
D	631.00	157.75	630.92	474.95	1327.88	0.00	1180.01	212.59	0.535	1.12	1.14	6.553	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	768.00	192.00	767.99	1003.97	954.98	0.00	1746.12	1643.87	0.440	0.78	0.78	3.679	A
B	1111.00	277.75	1110.93	983.99	738.99	0.00	1540.34	1392.09	0.721	2.54	2.56	8.378	A
C	1008.00	252.00	1008.00	1054.96	794.96	0.00	2303.01	2030.31	0.438	0.78	0.78	2.779	A
D	631.00	157.75	630.98	474.99	1327.97	0.00	1179.93	212.59	0.535	1.14	1.14	6.557	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	768.00	192.00	768.00	1003.98	954.99	0.00	1746.11	1643.87	0.440	0.78	0.78	3.679	A
B	1111.00	277.75	1110.97	984.00	738.99	0.00	1540.33	1392.09	0.721	2.56	2.57	8.381	A
C	1008.00	252.00	1008.00	1054.98	794.98	0.00	2302.98	2030.31	0.438	0.78	0.78	2.779	A
D	631.00	157.75	630.99	474.99	1327.98	0.00	1179.91	212.59	0.535	1.14	1.14	6.557	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.31	0.75	3.640	A	A
B	34.52	2.30	7.953	A	A
C	11.29	0.75	2.753	A	A
D	16.00	1.07	6.387	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.69	0.78	3.679	A	A
B	37.79	2.52	8.369	A	A
C	11.60	0.77	2.779	A	A
D	16.97	1.13	6.553	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.74	0.78	3.679	A	A
B	38.25	2.55	8.378	A	A
C	11.64	0.78	2.779	A	A
D	17.11	1.14	6.557	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.75	0.78	3.679	A	A
B	38.42	2.56	8.381	A	A
C	11.65	0.78	2.779	A	A
D	17.15	1.14	6.557	A	A

(Default Analysis Set) - Option 1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

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	✓	✓		11.70	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	284.00	55.31
B	340.00	138.64
C	445.00	46.99
D	622.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.068	2771.040
B		(calculated)	(calculated)	0.968	2257.709
C		(calculated)	(calculated)	1.155	3219.831
D		(calculated)	(calculated)	0.997	2501.886

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	975.00	100.000
B	FLAT	✓	1178.00	100.000
C	FLAT	✓	1609.00	100.000
D	FLAT	✓	810.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	451.000	381.000	143.000
	B	521.000	0.000	474.000	183.000
	C	492.000	534.000	0.000	583.000
	D	94.000	379.000	313.000	24.000

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

		To			
		A	B	C	D
From	A	0.00	0.46	0.39	0.15
	B	0.44	0.00	0.40	0.16
	C	0.31	0.33	0.00	0.36
	D	0.12	0.47	0.39	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.68	7.80	2.10	A	975.00	975.00	120.93	7.44	2.02	121.02	7.45
B	0.83	14.53	4.66	B	1178.00	1178.00	259.95	13.24	4.33	260.41	13.26
C	0.73	5.95	2.64	A	1609.00	1609.00	153.72	5.73	2.56	153.82	5.74
D	0.84	23.69	5.16	C	810.00	810.00	277.77	20.58	4.63	278.60	20.64

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	967.09	1094.38	1231.17	0.00	1456.13	1444.28	0.670	0.00	1.98	7.250	A
B	1178.00	294.50	1161.08	1348.78	849.48	0.00	1435.60	1256.13	0.821	0.00	4.23	12.445	B
C	1609.00	402.25	1598.83	1151.35	859.21	0.00	2227.40	2086.79	0.722	0.00	2.54	5.641	A
D	810.00	202.50	792.52	925.01	1533.03	0.00	973.85	621.81	0.832	0.00	4.37	18.397	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.65	1106.15	1248.02	0.00	1438.13	1444.28	0.678	1.98	2.07	7.757	A
B	1178.00	294.50	1176.84	1362.74	859.92	0.00	1425.49	1256.13	0.826	4.23	4.52	14.337	B
C	1609.00	402.25	1608.71	1166.57	870.19	0.00	2214.71	2086.79	0.727	2.54	2.62	5.935	A
D	810.00	202.50	807.87	932.60	1546.30	0.00	960.62	621.81	0.843	4.37	4.90	22.973	C

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.92	1106.73	1249.37	0.00	1436.69	1444.28	0.679	2.07	2.09	7.792	A
B	1178.00	294.50	1177.63	1363.62	860.67	0.00	1424.77	1256.13	0.827	4.52	4.61	14.487	B
C	1609.00	402.25	1608.93	1167.55	870.75	0.00	2214.08	2086.79	0.727	2.62	2.63	5.946	A
D	810.00	202.50	809.31	932.88	1546.79	0.00	960.14	621.81	0.844	4.90	5.08	23.516	C

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.97	1106.87	1249.69	0.00	1436.34	1444.28	0.679	2.09	2.10	7.799	A
B	1178.00	294.50	1177.82	1363.82	860.84	0.00	1424.60	1256.13	0.827	4.61	4.66	14.531	B
C	1609.00	402.25	1608.97	1167.78	870.88	0.00	2213.92	2086.79	0.727	2.63	2.64	5.950	A
D	810.00	202.50	809.66	932.95	1546.90	0.00	960.03	621.81	0.844	5.08	5.16	23.690	C

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.81	1.85	7.250	A	A
B	55.65	3.71	12.445	B	B
C	35.90	2.39	5.641	A	A
D	55.38	3.69	18.397	C	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.58	2.04	7.757	A	A
B	66.18	4.41	14.337	B	B
C	38.87	2.59	5.935	A	A
D	70.55	4.70	22.973	C	C

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.17	2.08	7.792	A	A
B	68.58	4.57	14.487	B	B
C	39.39	2.63	5.946	A	A
D	75.02	5.00	23.516	C	C

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.37	2.09	7.799	A	A
B	69.54	4.64	14.531	B	B
C	39.56	2.64	5.950	A	A
D	76.82	5.12	23.690	C	C

(Default Analysis Set) - Option 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

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	✓	✓		260.61	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	410.00	55.31
B	363.00	138.64
C	419.00	46.99
D	670.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.043	2741.808
B		(calculated)	(calculated)	0.964	2252.373
C		(calculated)	(calculated)	1.161	3225.863
D		(calculated)	(calculated)	0.987	2490.750

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	864.00	100.000
B	FLAT	✓	1442.00	100.000
C	FLAT	✓	1358.00	100.000
D	FLAT	✓	1069.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	416.000	373.000	75.000
	B	493.000	0.000	613.000	336.000
	C	487.000	548.000	0.000	323.000
	D	114.000	254.000	670.000	31.000

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

		To			
		A	B	C	D
From	A	0.00	0.48	0.43	0.09
	B	0.34	0.00	0.43	0.23
	C	0.36	0.40	0.00	0.24
	D	0.11	0.24	0.63	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.73	11.15	2.63	B	864.00	864.00	145.64	10.11	2.43	145.82	10.13
B	1.25	773.96	282.47	F	1442.00	1442.00	8395.62	349.33	139.93	10471.27	435.70
C	0.58	3.70	1.39	A	1358.00	1358.00	82.83	3.66	1.38	82.85	3.66
D	0.99	96.12	27.63	F	1069.00	1069.00	1146.52	64.35	19.11	1167.72	65.54

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	854.93	992.68	1448.05	0.00	1232.04	1443.96	0.701	0.00	2.27	9.336	A
B	1442.00	360.50	1169.88	1197.37	1105.61	0.00	1187.08	1281.77	1.215	0.00	68.03	112.319	F
C	1358.00	339.50	1352.44	1499.43	776.06	0.00	2324.94	2211.63	0.584	0.00	1.39	3.681	A
D	1069.00	267.25	1010.01	697.77	1430.73	0.00	1078.49	394.35	0.991	0.00	14.75	38.447	E

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	863.00	995.06	1482.30	0.00	1196.33	1443.96	0.722	2.27	2.52	10.753	B
B	1442.00	360.50	1159.84	1212.01	1133.30	0.00	1160.41	1281.77	1.243	68.03	138.57	327.977	F
C	1358.00	339.50	1357.99	1521.11	772.03	0.00	2329.62	2211.63	0.583	1.39	1.39	3.704	A
D	1069.00	267.25	1045.84	698.49	1431.53	0.00	1077.70	394.35	0.992	14.75	20.54	70.336	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	863.70	994.28	1488.76	0.00	1189.60	1443.96	0.726	2.52	2.59	11.023	B
B	1442.00	360.50	1155.31	1214.07	1138.39	0.00	1155.50	1281.77	1.248	138.57	210.24	549.351	F
C	1358.00	339.50	1358.00	1524.01	769.69	0.00	2332.33	2211.63	0.582	1.39	1.39	3.693	A
D	1069.00	267.25	1053.06	697.71	1429.98	0.00	1079.23	394.35	0.991	20.54	24.52	85.197	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	864.00	216.00	863.84	993.91	1491.92	0.00	1186.31	1443.96	0.728	2.59	2.63	11.147	B
B	1442.00	360.50	1153.10	1214.98	1140.78	0.00	1153.19	1281.77	1.250	210.24	282.47	773.960	F
C	1358.00	339.50	1358.00	1525.34	768.54	0.00	2333.67	2211.63	0.582	1.39	1.39	3.688	A
D	1069.00	267.25	1056.59	697.31	1429.23	0.00	1079.97	394.35	0.990	24.52	27.63	96.116	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.34	2.09	9.336	A	A
B	534.45	35.63	112.319	F	F
C	20.16	1.34	3.681	A	A
D	147.92	9.86	38.447	E	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	36.68	2.45	10.753	B	B
B	1549.72	103.31	327.977	F	F
C	20.88	1.39	3.704	A	A
D	267.57	17.84	70.336	F	E

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	38.43	2.56	11.023	B	B
B	2616.12	174.41	549.351	F	F
C	20.90	1.39	3.693	A	A
D	339.20	22.61	85.197	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	39.19	2.61	11.147	B	B
B	3695.33	246.36	773.960	F	F
C	20.90	1.39	3.688	A	A
D	391.83	26.12	96.116	F	F

(Default Analysis Set) - Option 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

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	✓	✓		12.24	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	284.00	55.31
B	340.00	138.64
C	445.00	46.99
D	622.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.068	2771.040
B		(calculated)	(calculated)	0.968	2257.709
C		(calculated)	(calculated)	1.155	3219.831
D		(calculated)	(calculated)	0.997	2501.886

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	975.00	100.000
B	FLAT	✓	1144.00	100.000
C	FLAT	✓	1404.00	100.000
D	FLAT	✓	871.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	451.000	382.000	142.000
	B	521.000	0.000	463.000	160.000
	C	498.000	475.000	0.000	431.000
	D	94.000	380.000	373.000	24.000

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

		To			
		A	B	C	D
From	A	0.00	0.46	0.39	0.15
	B	0.46	0.00	0.40	0.14
	C	0.35	0.34	0.00	0.31
	D	0.11	0.44	0.43	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.68	7.83	2.10	A	975.00	975.00	121.36	7.47	2.02	121.45	7.47
B	0.84	16.07	4.99	C	1144.00	1144.00	275.81	14.47	4.60	276.36	14.49
C	0.63	4.30	1.67	A	1404.00	1404.00	98.19	4.20	1.64	98.23	4.20
D	0.86	24.95	5.83	C	871.00	871.00	311.49	21.46	5.19	312.49	21.53

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	967.07	1100.47	1232.33	0.00	1454.89	1543.73	0.670	0.00	1.98	7.266	A
B	1144.00	286.00	1126.19	1291.59	907.81	0.00	1379.15	1236.86	0.830	0.00	4.45	13.418	B
C	1404.00	351.00	1397.49	1199.30	834.70	0.00	2255.71	2093.98	0.622	0.00	1.63	4.163	A
D	871.00	217.75	851.42	750.82	1481.38	0.00	1025.34	493.99	0.849	0.00	4.90	18.987	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.63	1112.03	1249.77	0.00	1436.26	1543.73	0.679	1.98	2.07	7.787	A
B	1144.00	286.00	1142.56	1304.72	919.69	0.00	1367.66	1236.86	0.836	4.45	4.81	15.787	C
C	1404.00	351.00	1403.88	1216.22	846.02	0.00	2242.63	2093.98	0.626	1.63	1.66	4.290	A
D	871.00	217.75	868.55	756.64	1493.26	0.00	1013.50	493.99	0.859	4.90	5.51	24.073	C

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.92	1112.69	1251.24	0.00	1434.70	1543.73	0.680	2.07	2.10	7.828	A
B	1144.00	286.00	1143.53	1305.58	920.57	0.00	1366.80	1236.86	0.837	4.81	4.93	16.006	C
C	1404.00	351.00	1403.97	1217.42	846.69	0.00	2241.87	2093.98	0.626	1.66	1.67	4.296	A
D	871.00	217.75	870.15	756.89	1493.77	0.00	1012.99	493.99	0.860	5.51	5.72	24.727	C

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	975.00	243.75	974.96	1112.85	1251.62	0.00	1434.29	1543.73	0.680	2.10	2.10	7.834	A
B	1144.00	286.00	1143.77	1305.79	920.79	0.00	1366.59	1236.86	0.837	4.93	4.99	16.075	C
C	1404.00	351.00	1403.99	1217.71	846.85	0.00	2241.68	2093.98	0.626	1.67	1.67	4.297	A
D	871.00	217.75	870.57	756.95	1493.89	0.00	1012.87	493.99	0.860	5.72	5.83	24.953	C

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.87	1.86	7.266	A	A
B	58.02	3.87	13.418	B	B
C	23.47	1.56	4.163	A	A
D	61.28	4.09	18.987	C	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.68	2.05	7.787	A	A
B	70.18	4.68	15.787	C	B
C	24.75	1.65	4.290	A	A
D	79.10	5.27	24.073	C	C

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.30	2.09	7.828	A	A
B	73.20	4.88	16.006	C	B
C	24.96	1.66	4.296	A	A
D	84.43	5.63	24.727	C	C

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.50	2.10	7.834	A	A
B	74.41	4.96	16.075	C	B
C	25.02	1.67	4.297	A	A
D	86.68	5.78	24.953	C	C

(Default Analysis Set) - Option 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

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	✓	✓		224.87	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	410.00	55.31
B	363.00	138.64
C	419.00	46.99
D	670.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.043	2741.808
B		(calculated)	(calculated)	0.964	2252.373
C		(calculated)	(calculated)	1.161	3225.863
D		(calculated)	(calculated)	0.987	2490.750

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	869.00	100.000
B	FLAT	✓	1393.00	100.000
C	FLAT	✓	1234.00	100.000
D	FLAT	✓	1074.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	417.000	381.000	71.000
	B	493.000	0.000	571.000	329.000
	C	491.000	531.000	0.000	212.000
	D	118.000	256.000	669.000	31.000

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

		To			
		A	B	C	D
From	A	0.00	0.48	0.44	0.08
	B	0.35	0.00	0.41	0.24
	C	0.40	0.43	0.00	0.17
	D	0.11	0.24	0.62	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.72	10.69	2.54	B	869.00	869.00	141.09	9.74	2.35	141.25	9.75
B	1.21	648.44	235.95	F	1393.00	1393.00	7022.53	302.48	117.04	8472.79	364.94
C	0.53	3.33	1.14	A	1234.00	1234.00	67.73	3.29	1.13	67.74	3.29
D	1.00	103.31	30.00	F	1074.00	1074.00	1218.81	68.09	20.31	1243.81	69.49

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	869.00	217.25	860.18	1012.73	1430.45	0.00	1250.39	1530.66	0.695	0.00	2.20	9.034	A
B	1393.00	348.25	1164.90	1183.19	1107.44	0.00	1185.32	1323.16	1.175	0.00	57.03	96.427	F
C	1234.00	308.50	1229.46	1485.43	786.91	0.00	2312.35	2165.62	0.534	0.00	1.14	3.311	A
D	1074.00	268.50	1012.67	585.86	1430.51	0.00	1078.71	258.10	0.996	0.00	15.33	39.445	E

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	869.00	217.25	868.08	1016.03	1464.12	0.00	1215.29	1530.66	0.715	2.20	2.43	10.328	B
B	1393.00	348.25	1158.08	1197.43	1134.77	0.00	1158.99	1323.16	1.202	57.03	115.76	276.428	F
C	1234.00	308.50	1233.99	1508.29	784.56	0.00	2315.08	2165.62	0.533	1.14	1.14	3.329	A
D	1074.00	268.50	1048.30	586.70	1431.85	0.00	1077.38	258.10	0.997	15.33	21.76	73.590	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	869.00	217.25	868.73	1015.30	1470.70	0.00	1208.43	1530.66	0.719	2.43	2.50	10.576	B
B	1393.00	348.25	1153.72	1199.50	1139.92	0.00	1154.02	1323.16	1.207	115.76	175.58	460.747	F
C	1234.00	308.50	1234.00	1511.39	782.25	0.00	2317.76	2165.62	0.532	1.14	1.14	3.320	A
D	1074.00	268.50	1055.69	585.94	1430.31	0.00	1078.90	258.10	0.995	21.76	26.34	90.487	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	869.00	217.25	868.85	1014.92	1473.97	0.00	1205.01	1530.66	0.721	2.50	2.54	10.694	B
B	1393.00	348.25	1151.50	1200.44	1142.39	0.00	1151.65	1323.16	1.210	175.58	235.95	648.444	F
C	1234.00	308.50	1234.00	1512.83	781.06	0.00	2319.14	2165.62	0.532	1.14	1.14	3.316	A
D	1074.00	268.50	1059.36	585.53	1429.53	0.00	1079.68	258.10	0.995	26.34	30.00	103.308	F

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.56	2.04	9.034	A	A
B	454.76	30.32	96.427	F	F
C	16.54	1.10	3.311	A	A
D	152.41	10.16	39.445	E	D

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	35.53	2.37	10.328	B	B
B	1296.23	86.42	276.428	F	F
C	17.05	1.14	3.329	A	A
D	281.16	18.74	73.590	F	E

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	37.15	2.48	10.576	B	B
B	2185.06	145.67	460.747	F	F
C	17.07	1.14	3.320	A	A
D	361.99	24.13	90.487	F	F

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	37.85	2.52	10.694	B	B
B	3086.48	205.77	648.444	F	F
C	17.07	1.14	3.316	A	A
D	423.24	28.22	103.308	F	F

(Default Analysis Set) - Option 3, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

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	✓	✓		5.64	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	284.00	55.31
B	340.00	138.64
C	445.00	46.99
D	622.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.068	2771.040
B		(calculated)	(calculated)	0.968	2257.709
C		(calculated)	(calculated)	1.155	3219.831
D		(calculated)	(calculated)	0.997	2501.886

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	992.00	100.000
B	FLAT	✓	1097.00	100.000
C	FLAT	✓	1003.00	100.000
D	FLAT	✓	725.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	494.000	354.000	144.000
	B	524.000	0.000	381.000	192.000
	C	390.000	322.000	0.000	291.000
	D	94.000	381.000	226.000	24.000

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

		To			
		A	B	C	D
From	A	0.00	0.50	0.36	0.15
	B	0.48	0.00	0.35	0.18
	C	0.39	0.32	0.00	0.29
	D	0.13	0.53	0.31	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.57	4.73	1.30	A	992.00	992.00	76.65	4.64	1.28	76.68	4.64
B	0.72	8.24	2.49	A	1097.00	1097.00	144.73	7.92	2.41	144.86	7.92
C	0.46	3.01	0.84	A	1003.00	1003.00	49.71	2.97	0.83	49.72	2.97
D	0.57	6.61	1.32	A	725.00	725.00	77.69	6.43	1.29	77.73	6.43

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	992.00	248.00	986.89	1001.43	947.44	0.00	1759.16	1632.74	0.564	0.00	1.28	4.631	A
B	1097.00	274.25	1087.35	1190.67	743.65	0.00	1538.02	1295.81	0.713	0.00	2.41	7.831	A
C	1003.00	250.75	999.69	954.21	876.79	0.00	2207.10	1949.85	0.454	0.00	0.83	2.975	A
D	725.00	181.25	719.83	647.44	1229.04	0.00	1276.85	505.31	0.568	0.00	1.29	6.405	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	992.00	248.00	991.94	1007.87	952.91	0.00	1753.31	1632.74	0.566	1.28	1.29	4.728	A
B	1097.00	274.25	1096.78	1196.91	747.94	0.00	1533.87	1295.81	0.715	2.41	2.47	8.227	A
C	1003.00	250.75	1002.97	960.87	883.85	0.00	2198.94	1949.85	0.456	0.83	0.84	3.009	A
D	725.00	181.25	724.91	650.94	1235.88	0.00	1270.04	505.31	0.571	1.29	1.32	6.601	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	992.00	248.00	991.98	1007.96	952.98	0.00	1753.24	1632.74	0.566	1.29	1.30	4.728	A
B	1097.00	274.25	1096.94	1196.98	747.98	0.00	1533.82	1295.81	0.715	2.47	2.48	8.236	A
C	1003.00	250.75	1002.99	960.97	883.96	0.00	2198.82	1949.85	0.456	0.84	0.84	3.009	A
D	725.00	181.25	724.98	650.98	1235.97	0.00	1269.95	505.31	0.571	1.32	1.32	6.605	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	992.00	248.00	991.99	1007.98	952.99	0.00	1753.23	1632.74	0.566	1.30	1.30	4.728	A
B	1097.00	274.25	1096.97	1196.99	747.99	0.00	1533.82	1295.81	0.715	2.48	2.49	8.237	A
C	1003.00	250.75	1003.00	960.98	883.98	0.00	2198.79	1949.85	0.456	0.84	0.84	3.009	A
D	725.00	181.25	724.99	650.99	1235.98	0.00	1269.93	505.31	0.571	1.32	1.32	6.605	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.43	1.23	4.631	A	A
B	33.59	2.24	7.831	A	A
C	12.12	0.81	2.975	A	A
D	18.44	1.23	6.405	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.32	1.29	4.728	A	A
B	36.70	2.45	8.227	A	A
C	12.49	0.83	3.009	A	A
D	19.62	1.31	6.601	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.43	1.30	4.728	A	A
B	37.14	2.48	8.236	A	A
C	12.54	0.84	3.009	A	A
D	19.79	1.32	6.605	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.47	1.30	4.728	A	A
B	37.30	2.49	8.237	A	A
C	12.55	0.84	3.009	A	A
D	19.84	1.32	6.605	A	A

(Default Analysis Set) - Option 3, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

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	✓	✓		10.10	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	410.00	55.31
B	363.00	138.64
C	419.00	46.99
D	670.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.043	2741.808
B		(calculated)	(calculated)	0.964	2252.373
C		(calculated)	(calculated)	1.161	3225.863
D		(calculated)	(calculated)	0.987	2490.750

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	801.00	100.000
B	FLAT	✓	1298.00	100.000
C	FLAT	✓	1040.00	100.000
D	FLAT	✓	791.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	424.000	302.000	75.000
	B	527.000	0.000	431.000	340.000
	C	426.000	443.000	0.000	171.000
	D	115.000	266.000	379.000	31.000

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

		To			
		A	B	C	D
From	A	0.00	0.53	0.38	0.09
	B	0.41	0.00	0.33	0.26
	C	0.41	0.43	0.00	0.16
	D	0.15	0.34	0.48	0.04

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.51	4.65	1.03	A	801.00	801.00	60.86	4.56	1.01	60.88	4.56
B	0.87	18.17	6.37	C	1298.00	1298.00	349.16	16.14	5.82	349.98	16.18
C	0.50	3.41	0.98	A	1040.00	1040.00	58.02	3.35	0.97	58.04	3.35
D	0.71	11.17	2.43	B	791.00	791.00	138.94	10.54	2.32	139.10	10.55

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	801.00	200.25	796.95	1055.90	1109.57	0.00	1584.94	1587.34	0.505	0.00	1.01	4.546	A
B	1298.00	324.50	1275.34	1126.16	780.37	0.00	1500.46	1376.30	0.865	0.00	5.67	14.771	B
C	1040.00	260.00	1036.16	1098.58	957.13	0.00	2114.74	1971.89	0.492	0.00	0.96	3.325	A
D	791.00	197.75	781.89	609.70	1383.59	0.00	1125.02	312.78	0.703	0.00	2.28	10.238	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	801.00	200.25	800.94	1067.17	1118.60	0.00	1575.53	1587.34	0.508	1.01	1.03	4.647	A
B	1298.00	324.50	1296.17	1132.79	786.75	0.00	1494.32	1376.30	0.869	5.67	6.12	17.810	C
C	1040.00	260.00	1039.93	1111.16	971.76	0.00	2097.76	1971.89	0.496	0.96	0.98	3.402	A
D	791.00	197.75	790.57	616.49	1395.20	0.00	1113.56	312.78	0.710	2.28	2.39	11.116	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	801.00	200.25	800.99	1067.72	1118.90	0.00	1575.22	1587.34	0.509	1.03	1.03	4.649	A
B	1298.00	324.50	1297.35	1132.95	786.94	0.00	1494.14	1376.30	0.869	6.12	6.28	18.074	C
C	1040.00	260.00	1039.99	1111.73	972.56	0.00	2096.83	1971.89	0.496	0.98	0.98	3.405	A
D	791.00	197.75	790.89	616.82	1395.73	0.00	1113.04	312.78	0.711	2.39	2.41	11.160	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	801.00	200.25	800.99	1067.86	1118.96	0.00	1575.16	1587.34	0.509	1.03	1.03	4.649	A
B	1298.00	324.50	1297.67	1132.98	786.97	0.00	1494.10	1376.30	0.869	6.28	6.37	18.167	C
C	1040.00	260.00	1040.00	1111.86	972.78	0.00	2096.58	1971.89	0.496	0.98	0.98	3.406	A
D	791.00	197.75	790.95	616.91	1395.86	0.00	1112.91	312.78	0.711	2.41	2.43	11.171	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.64	0.98	4.546	A	A
B	71.89	4.79	14.771	B	B
C	14.02	0.93	3.325	A	A
D	31.33	2.09	10.238	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.33	1.02	4.647	A	A
B	89.15	5.94	17.810	C	B
C	14.59	0.97	3.402	A	A
D	35.25	2.35	11.116	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.43	1.03	4.649	A	A
B	93.20	6.21	18.074	C	B
C	14.69	0.98	3.405	A	A
D	36.04	2.40	11.160	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.46	1.03	4.649	A	A
B	94.93	6.33	18.167	C	B
C	14.72	0.98	3.406	A	A
D	36.32	2.42	11.171	B	B

(Default Analysis Set) - Option 4, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

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	✓	✓		5.72	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	284.00	55.31
B	340.00	138.64
C	445.00	46.99
D	622.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.068	2771.040
B		(calculated)	(calculated)	0.968	2257.709
C		(calculated)	(calculated)	1.155	3219.831
D		(calculated)	(calculated)	0.997	2501.886

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1010.00	100.000
B	FLAT	✓	1099.00	100.000
C	FLAT	✓	1004.00	100.000
D	FLAT	✓	725.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	506.000	358.000	146.000
	B	525.000	0.000	381.000	193.000
	C	391.000	322.000	0.000	291.000
	D	94.000	381.000	226.000	24.000

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

		To			
		A	B	C	D
From	A	0.00	0.50	0.35	0.14
	B	0.48	0.00	0.35	0.18
	C	0.39	0.32	0.00	0.29
	D	0.13	0.53	0.31	0.03

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.58	4.84	1.35	A	1010.00	1010.00	79.88	4.75	1.33	79.91	4.75
B	0.72	8.39	2.54	A	1099.00	1099.00	147.48	8.05	2.46	147.61	8.06
C	0.46	3.02	0.84	A	1004.00	1004.00	49.99	2.99	0.83	50.00	2.99
D	0.57	6.63	1.33	A	725.00	725.00	77.96	6.45	1.30	78.00	6.46

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	1010.00	252.50	1004.67	1003.33	947.42	0.00	1759.18	1634.74	0.574	0.00	1.33	4.739	A
B	1099.00	274.75	1089.17	1202.54	749.55	0.00	1532.31	1299.70	0.717	0.00	2.46	7.957	A
C	1004.00	251.00	1000.67	958.09	880.64	0.00	2202.65	1946.79	0.456	0.00	0.83	2.986	A
D	725.00	181.25	719.81	650.37	1230.94	0.00	1274.96	505.01	0.569	0.00	1.30	6.427	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	1010.00	252.50	1009.93	1009.87	952.91	0.00	1753.32	1634.74	0.576	1.33	1.35	4.842	A
B	1099.00	274.75	1098.77	1208.91	753.93	0.00	1528.07	1299.70	0.719	2.46	2.51	8.375	A
C	1004.00	251.00	1003.97	964.87	887.84	0.00	2194.33	1946.79	0.458	0.83	0.84	3.023	A
D	725.00	181.25	724.90	653.94	1237.87	0.00	1268.05	505.01	0.572	1.30	1.32	6.625	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	1010.00	252.50	1009.98	1009.96	952.98	0.00	1753.24	1634.74	0.576	1.35	1.35	4.843	A
B	1099.00	274.75	1098.93	1208.98	753.98	0.00	1528.02	1299.70	0.719	2.51	2.53	8.384	A
C	1004.00	251.00	1003.99	964.96	887.95	0.00	2194.20	1946.79	0.458	0.84	0.84	3.024	A
D	725.00	181.25	724.98	653.98	1237.96	0.00	1267.96	505.01	0.572	1.32	1.33	6.629	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	1010.00	252.50	1009.99	1009.98	952.99	0.00	1753.23	1634.74	0.576	1.35	1.35	4.843	A
B	1099.00	274.75	1098.97	1208.99	753.99	0.00	1528.01	1299.70	0.719	2.53	2.54	8.387	A
C	1004.00	251.00	1004.00	964.98	887.98	0.00	2194.17	1946.79	0.458	0.84	0.84	3.024	A
D	725.00	181.25	724.99	653.99	1237.98	0.00	1267.94	505.01	0.572	1.33	1.33	6.629	A

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.18	1.28	4.739	A	A
B	34.17	2.28	7.957	A	A
C	12.19	0.81	2.986	A	A
D	18.50	1.23	6.427	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.14	1.34	4.842	A	A
B	37.41	2.49	8.375	A	A
C	12.56	0.84	3.023	A	A
D	19.69	1.31	6.625	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.26	1.35	4.843	A	A
B	37.86	2.52	8.384	A	A
C	12.61	0.84	3.024	A	A
D	19.86	1.32	6.629	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.30	1.35	4.843	A	A
B	38.04	2.54	8.387	A	A
C	12.63	0.84	3.024	A	A
D	19.92	1.33	6.629	A	A

(Default Analysis Set) - Option 4, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - 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.

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

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	✓	✓		10.69	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Brentwood Road	
B	B	A127 East	
C	C	Tilbury Road	
D	D	A127 West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		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	3.88	6.70	35.36	999.00	124.00	8.00	
B	5.19	5.19	0.00	999.00	124.00	8.00	
C	4.03	8.85	45.28	48.62	124.00	8.00	
D	5.77	6.36	2.87	999.00	124.00	9.00	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	410.00	55.31
B	363.00	138.64
C	419.00	46.99
D	670.00	140.50

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	1.043	2741.808
B		(calculated)	(calculated)	0.964	2252.373
C		(calculated)	(calculated)	1.161	3225.863
D		(calculated)	(calculated)	0.987	2490.750

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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	805.00	100.000
B	FLAT	✓	1310.00	100.000
C	FLAT	✓	1044.00	100.000
D	FLAT	✓	791.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	426.000	303.000	76.000
	B	539.000	0.000	431.000	340.000
	C	430.000	443.000	0.000	171.000
	D	115.000	266.000	379.000	31.000

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

		To			
		A	B	C	D
From	A	0.00	0.53	0.38	0.09
	B	0.41	0.00	0.33	0.26
	C	0.41	0.42	0.00	0.16
	D	0.15	0.34	0.48	0.04

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 (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.51	4.67	1.04	A	805.00	805.00	61.46	4.58	1.02	61.48	4.58
B	0.88	19.50	6.88	C	1310.00	1310.00	374.18	17.14	6.24	375.13	17.18
C	0.50	3.47	1.00	A	1044.00	1044.00	59.27	3.41	0.99	59.28	3.41
D	0.72	11.74	2.55	B	791.00	791.00	145.42	11.03	2.42	145.60	11.04

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	805.00	201.25	800.92	1071.06	1109.20	0.00	1585.33	1595.97	0.508	0.00	1.02	4.566	A
B	1310.00	327.50	1285.84	1127.98	782.15	0.00	1498.75	1373.83	0.874	0.00	6.04	15.494	C
C	1044.00	261.00	1040.08	1098.96	969.03	0.00	2100.92	1966.72	0.497	0.00	0.98	3.381	A
D	791.00	197.75	781.49	610.33	1398.78	0.00	1110.03	309.43	0.713	0.00	2.38	10.671	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	805.00	201.25	804.94	1083.01	1118.55	0.00	1575.59	1595.97	0.511	1.02	1.04	4.671	A
B	1310.00	327.50	1307.84	1134.77	788.71	0.00	1492.42	1373.83	0.878	6.04	6.58	19.026	C
C	1044.00	261.00	1043.93	1112.03	984.53	0.00	2082.94	1966.72	0.501	0.98	1.00	3.464	A
D	791.00	197.75	790.50	617.40	1411.05	0.00	1097.92	309.43	0.720	2.38	2.50	11.673	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	805.00	201.25	804.99	1083.65	1118.89	0.00	1575.24	1595.97	0.511	1.04	1.04	4.673	A
B	1310.00	327.50	1309.22	1134.94	788.93	0.00	1492.22	1373.83	0.878	6.58	6.78	19.374	C
C	1044.00	261.00	1043.99	1112.68	985.47	0.00	2081.84	1966.72	0.501	1.00	1.00	3.467	A
D	791.00	197.75	790.87	617.79	1411.67	0.00	1097.31	309.43	0.721	2.50	2.53	11.731	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
A	805.00	201.25	804.99	1083.82	1118.95	0.00	1575.17	1595.97	0.511	1.04	1.04	4.673	A
B	1310.00	327.50	1309.60	1134.98	788.97	0.00	1492.18	1373.83	0.878	6.78	6.88	19.497	C
C	1044.00	261.00	1043.99	1112.84	985.73	0.00	2081.54	1966.72	0.502	1.00	1.00	3.468	A
D	791.00	197.75	790.94	617.89	1411.83	0.00	1097.15	309.43	0.721	2.53	2.55	11.744	B

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.78	0.99	4.566	A	A
B	75.87	5.06	15.494	C	B
C	14.30	0.95	3.381	A	A
D	32.57	2.17	10.671	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.48	1.03	4.671	A	A
B	95.50	6.37	19.026	C	B
C	14.91	0.99	3.464	A	A
D	36.90	2.46	11.673	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.59	1.04	4.673	A	A
B	100.35	6.69	19.374	C	B
C	15.01	1.00	3.467	A	A
D	37.82	2.52	11.731	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.62	1.04	4.673	A	A
B	102.46	6.83	19.497	C	B
C	15.05	1.00	3.468	A	A
D	38.13	2.54	11.744	B	B

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 14a A127 - Childerditch Lane Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 10:01:39

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	4.24	193.18	0.85	F	4.99	151.53	0.87	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	27.27	1323.19	1.36	F	59.73	2252.86	1.68	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	37.08	2012.83	1.59	F	67.84	2527.84	1.77	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	14.15	633.18	1.11	F	15.63	456.92	1.07	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	14.15	633.18	1.11	F	15.63	456.92	1.07	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 10:00:06

File summary

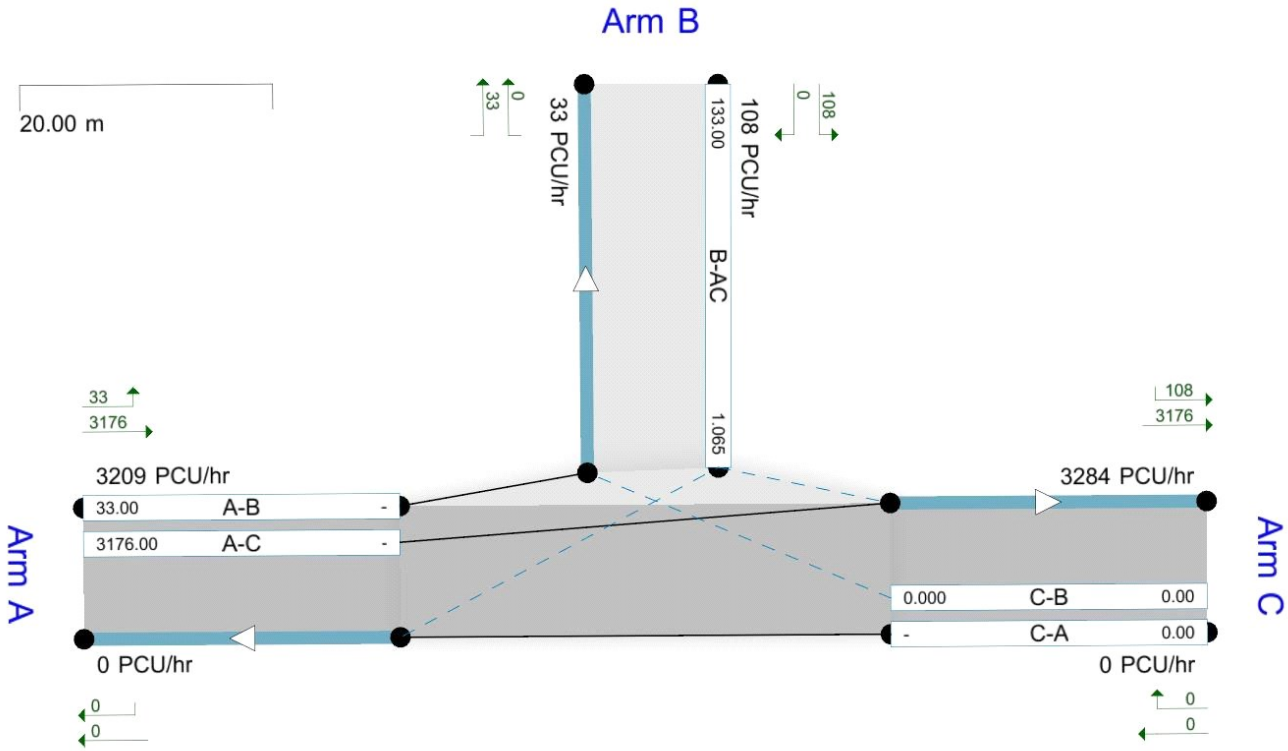
Title	A127 - Childerditch Lane
Location	Brentwood
Site Number	14a
Date	06/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		193.18	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3363.00	100.000
B	FLAT	✓	86.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	3344.000
	B	0.000	0.000	86.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.85	193.18	4.24	F	86.00	86.00	196.63	137.18	3.28	201.97	140.91
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	3344.00	3344.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	86.00	21.50	74.67	0.00	101.03	0.851	0.00	2.83	111.936	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	96.14	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3344.00	836.00	3344.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	86.00	21.50	83.09	0.00	101.03	0.851	2.83	3.56	166.136	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	96.14	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3344.00	836.00	3344.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	86.00	21.50	84.36	0.00	101.03	0.851	3.56	3.97	183.126	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	96.14	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3344.00	836.00	3344.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	86.00	21.50	84.91	0.00	101.03	0.851	3.97	4.24	193.179	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	96.14	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3344.00	836.00	3344.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	29.60	1.97	111.936	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	48.58	3.24	166.136	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	56.73	3.78	183.126	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	61.72	4.11	193.179	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		151.53	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3054.00	100.000
B	FLAT	✓	128.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3021.000
	B	0.000	0.000	128.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.87	151.53	4.99	F	128.00	128.00	234.88	110.10	3.91	239.95	112.47
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3021.00	3021.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	128.00	32.00	114.29	0.00	147.64	0.867	0.00	3.43	88.506	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	140.05	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3021.00	755.25	3021.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	128.00	32.00	124.72	0.00	147.64	0.867	3.43	4.25	131.526	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	140.05	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3021.00	755.25	3021.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	128.00	32.00	126.19	0.00	147.64	0.867	4.25	4.70	144.200	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	140.05	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3021.00	755.25	3021.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	128.00	32.00	126.82	0.00	147.64	0.867	4.70	4.99	151.532	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	140.05	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3021.00	755.25	3021.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.36	2.42	88.506	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	58.30	3.89	131.526	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	67.38	4.49	144.200	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	72.84	4.86	151.532	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		1323.19	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3580.00	100.000
B	FLAT	✓	94.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	3561.000
	B	0.000	0.000	94.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.36	1323.19	27.27	F	94.00	94.00	867.59	553.78	14.46	1190.20	759.71
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	3561.00	3561.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	94.00	23.50	61.58	0.00	69.17	1.359	0.00	8.11	293.385	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	65.31	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3561.00	890.25	3561.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	94.00	23.50	67.92	0.00	69.17	1.359	8.11	14.63	670.363	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	65.31	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3561.00	890.25	3561.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	94.00	23.50	68.58	0.00	69.17	1.359	14.63	20.98	998.268	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	65.31	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3561.00	890.25	3561.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	94.00	23.50	68.83	0.00	69.17	1.359	20.98	27.27	1323.188	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	65.31	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3561.00	890.25	3561.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	67.60	4.51	293.385	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	170.86	11.39	670.363	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	267.17	17.81	998.268	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	361.96	24.13	1323.188	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		2252.86	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3476.00	100.000
B	FLAT	✓	144.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3443.000
	B	0.000	0.000	144.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.68	2252.86	59.73	F	144.00	144.00	1826.73	761.14	30.45	3075.78	1281.58
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3443.00	3443.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	144.00	36.00	80.60	0.00	85.68	1.681	0.00	15.85	396.033	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.09	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3443.00	860.75	3443.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	144.00	36.00	85.33	0.00	85.68	1.681	15.85	30.52	1032.562	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.09	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3443.00	860.75	3443.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	144.00	36.00	85.55	0.00	85.68	1.681	30.52	45.13	1642.016	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.09	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3443.00	860.75	3443.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	144.00	36.00	85.61	0.00	85.68	1.681	45.13	59.73	2252.864	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.09	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3443.00	860.75	3443.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	124.99	8.33	396.033	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	347.89	23.19	1032.562	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	567.39	37.83	1642.016	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	786.45	52.43	2252.864	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		2012.83	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3639.00	100.000
B	FLAT	✓	96.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	3620.000
	B	0.000	0.000	96.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.59	2012.83	37.08	F	96.00	96.00	1148.47	717.80	19.14	1830.09	1143.80
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	3620.00	3620.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	96.00	24.00	55.12	0.00	60.51	1.587	0.00	10.22	391.760	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	56.93	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3620.00	905.00	3620.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	96.00	24.00	59.92	0.00	60.51	1.587	10.22	19.24	959.390	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	56.93	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3620.00	905.00	3620.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	96.00	24.00	60.27	0.00	60.51	1.587	19.24	28.17	1486.077	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	56.93	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3620.00	905.00	3620.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	96.00	24.00	60.38	0.00	60.51	1.587	28.17	37.08	2012.831	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	56.93	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3620.00	905.00	3620.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	82.27	5.48	391.760	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	221.15	14.74	959.390	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	355.65	23.71	1486.077	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	489.41	32.63	2012.831	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		2527.84	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3471.00	100.000
B	FLAT	✓	153.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3438.000
	B	0.000	0.000	153.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.77	2527.84	67.84	F	153.00	153.00	2066.93	810.56	34.45	3664.54	1437.07
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3438.00	3438.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	153.00	38.25	81.82	0.00	86.42	1.770	0.00	17.80	431.792	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.80	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3438.00	859.50	3438.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	153.00	38.25	86.15	0.00	86.42	1.770	17.80	34.51	1146.052	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.80	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3438.00	859.50	3438.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	153.00	38.25	86.32	0.00	86.42	1.770	34.51	51.18	1836.144	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.80	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3438.00	859.50	3438.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	153.00	38.25	86.36	0.00	86.42	1.770	51.18	67.84	2527.837	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	80.80	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3438.00	859.50	3438.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	139.23	9.28	431.792	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	392.38	26.16	1146.052	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	642.68	42.85	1836.144	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	892.64	59.51	2527.837	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		633.18	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3498.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	3479.000
	B	0.000	0.000	90.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.11	633.18	14.15	F	90.00	90.00	497.55	331.70	8.29	571.52	381.01
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	3479.00	3479.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	68.48	0.00	81.21	1.108	0.00	5.38	195.214	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	77.05	0.00	81.21	1.108	5.38	8.62	383.518	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	78.57	0.00	81.21	1.108	8.62	11.47	513.828	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	79.30	0.00	81.21	1.108	11.47	14.15	633.184	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	48.52	3.23	195.214	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	105.69	7.05	383.518	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	150.99	10.07	513.828	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	192.35	12.82	633.184	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		456.92	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3209.00	100.000
B	FLAT	✓	133.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3176.000
	B	0.000	0.000	133.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.07	456.92	15.63	F	133.00	133.00	564.27	254.56	9.40	622.94	281.03
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3176.00	3176.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	107.78	0.00	124.88	1.065	0.00	6.30	146.581	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	118.91	0.00	124.88	1.065	6.30	9.83	285.279	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	120.90	0.00	124.88	1.065	9.83	12.85	375.865	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	121.89	0.00	124.88	1.065	12.85	15.63	456.921	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	58.05	3.87	146.581	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	121.91	8.13	285.279	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	170.48	11.37	375.865	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	213.83	14.26	456.921	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		633.18	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3498.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	3479.000
	B	0.000	0.000	90.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.11	633.18	14.15	F	90.00	90.00	497.55	331.70	8.29	571.52	381.01
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	19.00	19.00	-	-	-	-	-
A-C	-	-	-	-	3479.00	3479.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	68.48	0.00	81.21	1.108	0.00	5.38	195.214	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	77.05	0.00	81.21	1.108	5.38	8.62	383.518	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	78.57	0.00	81.21	1.108	8.62	11.47	513.828	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	90.00	22.50	79.30	0.00	81.21	1.108	11.47	14.15	633.184	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	19.00	4.75	19.00	0.00	-	-	-	-	-	-
A-C	3479.00	869.75	3479.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	48.52	3.23	195.214	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	105.69	7.05	383.518	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	150.99	10.07	513.828	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	192.35	12.82	633.184	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		456.92	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 West		Major
B	B	Childerditch Lane N		Minor
C	C	A127 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.15		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.20										0	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	454.215	0.053	0.134	0.084	0.191
1	B-C	593.074	0.058	0.147	-	-
1	C-B	573.963	0.142	0.142	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3209.00	100.000
B	FLAT	✓	133.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3176.000
	B	0.000	0.000	133.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.07	456.92	15.63	F	133.00	133.00	564.27	254.56	9.40	622.94	281.03
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3176.00	3176.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	107.78	0.00	124.88	1.065	0.00	6.30	146.581	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	118.91	0.00	124.88	1.065	6.30	9.83	285.279	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	120.90	0.00	124.88	1.065	9.83	12.85	375.865	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	133.00	33.25	121.89	0.00	124.88	1.065	12.85	15.63	456.921	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	118.02	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3176.00	794.00	3176.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	58.05	3.87	146.581	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	121.91	8.13	285.279	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	170.48	11.37	375.865	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	213.83	14.26	456.921	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 14b A127 - Childerditch Lane Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 10:07:21

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	0.70	50.60	0.42	F	0.26	34.73	0.21	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	64.11	3572.01	2.09	F	1.26	97.07	0.57	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	0.08	49.05	0.08	E				
Stream C-A	-	-	-	-				
Stream C-B	0.00	0.00	0.00	A				
Stream A-B	-	-	-	-				
Stream A-C	-	-	-	-				
	A1 - Option 3							
Stream B-AC	17.60	620.65	1.12	F	0.78	59.01	0.45	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	17.71	624.97	1.12	F	0.78	59.15	0.45	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 10:07:18

File summary

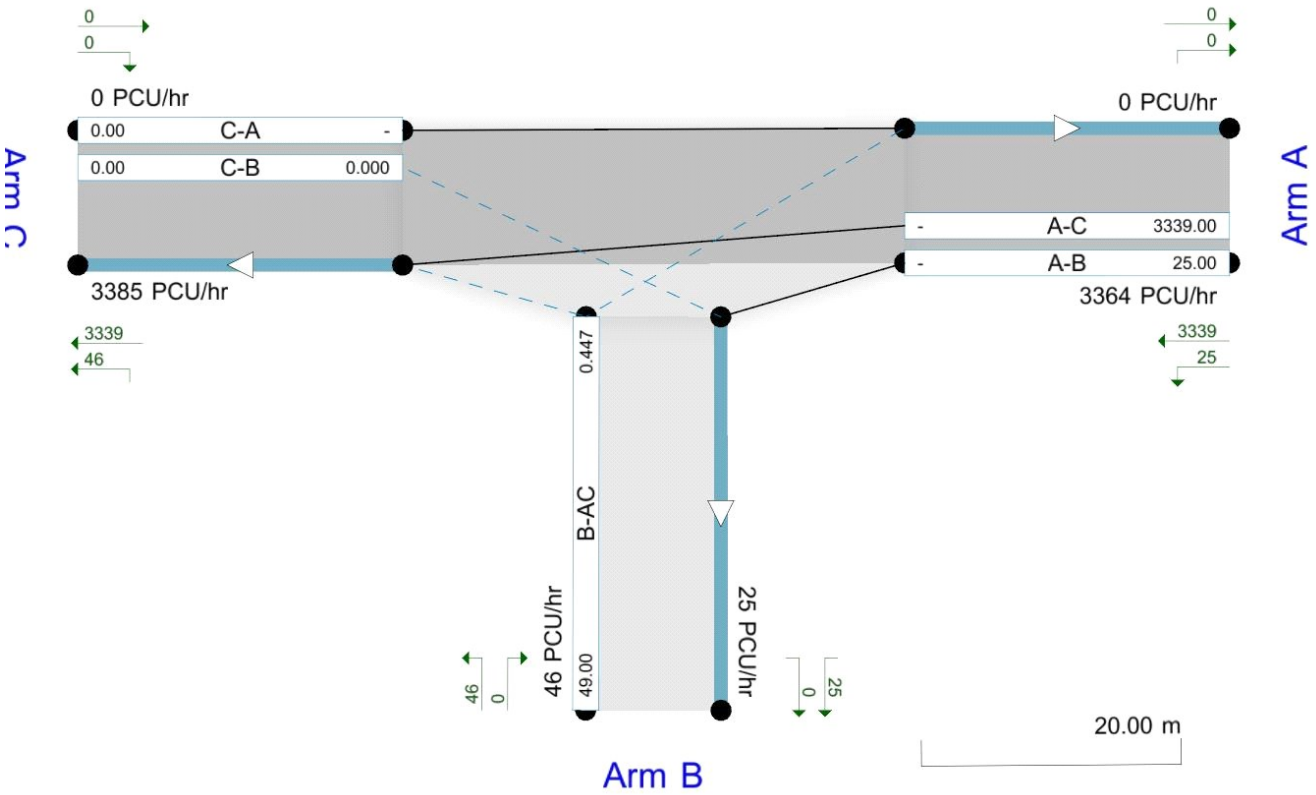
Title	A127 - Childerditch Lane
Location	Brentwood
Site Number	14b
Date	06/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()
Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		50.60	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3288.00	100.000
B	FLAT	✓	51.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	33.000	3255.000
	B	0.000	0.000	51.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.42	50.60	0.70	F	51.00	51.00	39.40	46.35	0.66	39.52	46.49
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.00	33.00	-	-	-	-	-
A-C	-	-	-	-	3255.00	3255.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	51.00	12.75	48.37	0.00	122.00	0.418	0.00	0.66	47.451	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	109.98	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3255.00	813.75	3255.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	51.00	12.75	50.88	0.00	122.00	0.418	0.66	0.69	50.413	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	109.98	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3255.00	813.75	3255.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	51.00	12.75	50.96	0.00	122.00	0.418	0.69	0.70	50.548	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	109.98	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3255.00	813.75	3255.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	51.00	12.75	50.98	0.00	122.00	0.418	0.70	0.70	50.598	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	109.98	0.000	0.00	0.00	0.000	A
A-B	33.00	8.25	33.00	0.00	-	-	-	-	-	-
A-C	3255.00	813.75	3255.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	8.42	0.56	47.451	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	10.12	0.67	50.413	F	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	10.37	0.69	50.548	F	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	10.49	0.70	50.598	F	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		34.73	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3220.00	100.000
B	FLAT	✓	27.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	14.000	3206.000
	B	0.000	0.000	27.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.00	1.00
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.21	34.73	0.26	D	27.00	27.00	14.81	32.91	0.25	14.83	32.95
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	14.00	14.00	-	-	-	-	-
A-C	-	-	-	-	3206.00	3206.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.00	6.75	26.01	0.00	130.63	0.207	0.00	0.25	34.113	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	119.58	0.000	0.00	0.00	0.000	A
A-B	14.00	3.50	14.00	0.00	-	-	-	-	-	-
A-C	3206.00	801.50	3206.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.00	6.75	26.98	0.00	130.63	0.207	0.25	0.25	34.710	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	119.58	0.000	0.00	0.00	0.000	A
A-B	14.00	3.50	14.00	0.00	-	-	-	-	-	-
A-C	3206.00	801.50	3206.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.00	6.75	26.99	0.00	130.63	0.207	0.25	0.26	34.725	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	119.58	0.000	0.00	0.00	0.000	A
A-B	14.00	3.50	14.00	0.00	-	-	-	-	-	-
A-C	3206.00	801.50	3206.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	27.00	6.75	27.00	0.00	130.63	0.207	0.26	0.26	34.731	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	119.58	0.000	0.00	0.00	0.000	A
A-B	14.00	3.50	14.00	0.00	-	-	-	-	-	-
A-C	3206.00	801.50	3206.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.34	0.22	34.113	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.78	0.25	34.710	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.83	0.26	34.725	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.85	0.26	34.731	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		3572.01	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3710.00	100.000
B	FLAT	✓	121.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	35.000	3675.000
	B	0.000	0.000	121.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	2.09	3572.01	64.11	F	121.00	121.00	1946.08	965.00	32.43	4080.37	2023.32
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	35.00	35.00	-	-	-	-	-
A-C	-	-	-	-	3675.00	3675.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	54.50	0.00	57.78	2.094	0.00	16.63	601.377	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	50.43	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3675.00	918.75	3675.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	57.60	0.00	57.78	2.094	16.63	32.48	1608.129	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	50.43	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3675.00	918.75	3675.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	57.71	0.00	57.78	2.094	32.48	48.30	2589.112	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	50.43	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3675.00	918.75	3675.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	57.74	0.00	57.78	2.094	48.30	64.11	3572.014	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	50.43	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3675.00	918.75	3675.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	128.88	8.59	601.377	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	368.32	24.55	1608.129	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	605.81	40.39	2589.112	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	843.07	56.20	3572.014	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		97.07	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3522.00	100.000
B	FLAT	✓	49.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	25.000	3497.000
	B	0.000	0.000	49.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.57	97.07	1.26	F	49.00	49.00	67.27	82.37	1.12	67.83	83.06
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	25.00	25.00	-	-	-	-	-
A-C	-	-	-	-	3497.00	3497.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	44.64	0.00	85.55	0.573	0.00	1.09	81.678	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3497.00	874.25	3497.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.58	0.00	85.55	0.573	1.09	1.20	95.025	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3497.00	874.25	3497.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.83	0.00	85.55	0.573	1.20	1.24	96.478	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3497.00	874.25	3497.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.91	0.00	85.55	0.573	1.24	1.26	97.072	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	76.96	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3497.00	874.25	3497.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	12.88	0.86	81.678	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.30	1.15	95.025	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	18.31	1.22	96.478	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	18.78	1.25	97.072	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		49.05	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3534.00	100.000
B	FLAT	✓	6.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	-22.000	3556.000
	B	0.000	0.000	6.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	-0.01	1.01
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.08	49.05	0.08	E	6.00	6.00	4.60	46.03	0.08	4.61	46.05
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	-22.00	-22.00	-	-	-	-	-
A-C	-	-	-	-	3556.00	3556.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.00	1.50	5.69	0.00	79.38	0.076	0.00	0.08	48.669	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	75.27	0.000	0.00	0.00	0.000	A
A-B	-22.00	-5.50	0.00	0.00	-	-	-	-	-	-
A-C	3556.00	889.00	3556.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.00	1.50	5.99	0.00	79.38	0.076	0.08	0.08	49.037	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	75.27	0.000	0.00	0.00	0.000	A
A-B	-22.00	-5.50	0.00	0.00	-	-	-	-	-	-
A-C	3556.00	889.00	3556.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.00	1.50	6.00	0.00	79.38	0.076	0.08	0.08	49.049	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	75.27	0.000	0.00	0.00	0.000	A
A-B	-22.00	-5.50	0.00	0.00	-	-	-	-	-	-
A-C	3556.00	889.00	3556.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	6.00	1.50	6.00	0.00	79.38	0.076	0.08	0.08	49.051	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	75.27	0.000	0.00	0.00	0.000	A
A-B	-22.00	-5.50	0.00	0.00	-	-	-	-	-	-
A-C	3556.00	889.00	3556.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.02	0.07	48.669	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.18	0.08	49.037	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.20	0.08	49.049	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.21	0.08	49.051	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

Unable to run analysis set for main data file. Use the Task List to check errors or warning for this analysis set.

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		620.65	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3428.00	100.000
B	FLAT	✓	113.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	35.000	3393.000
	B	0.000	0.000	113.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.12	620.65	17.60	F	113.00	113.00	608.35	323.02	10.14	700.55	371.97
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	35.00	35.00	-	-	-	-	-
A-C	-	-	-	-	3393.00	3393.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	87.26	0.00	100.82	1.121	0.00	6.44	179.567	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.22	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3393.00	848.25	3393.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	96.82	0.00	100.82	1.121	6.44	10.48	364.020	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.22	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3393.00	848.25	3393.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	98.39	0.00	100.82	1.121	10.48	14.13	496.711	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.22	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3393.00	848.25	3393.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	99.12	0.00	100.82	1.121	14.13	17.60	620.646	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.22	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3393.00	848.25	3393.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	57.62	3.84	179.567	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	127.64	8.51	364.020	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	184.92	12.33	496.711	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	238.18	15.88	620.646	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		59.01	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3363.00	100.000
B	FLAT	✓	49.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	25.000	3338.000
	B	0.000	0.000	49.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.45	59.01	0.78	F	49.00	49.00	43.55	53.33	0.73	43.72	53.54
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	25.00	25.00	-	-	-	-	-
A-C	-	-	-	-	3338.00	3338.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	46.11	0.00	109.82	0.446	0.00	0.72	54.459	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.40	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3338.00	834.50	3338.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.85	0.00	109.82	0.446	0.72	0.76	58.682	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.40	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3338.00	834.50	3338.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.94	0.00	109.82	0.446	0.76	0.78	58.919	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.40	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3338.00	834.50	3338.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.97	0.00	109.82	0.446	0.78	0.78	59.005	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.40	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3338.00	834.50	3338.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	9.12	0.61	54.459	F	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.20	0.75	58.682	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.54	0.77	58.919	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.69	0.78	59.005	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		624.97	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3429.00	100.000
B	FLAT	✓	113.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	35.000	3394.000
	B	0.000	0.000	113.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.12	624.97	17.71	F	113.00	113.00	611.48	324.68	10.19	704.99	374.33
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	35.00	35.00	-	-	-	-	-
A-C	-	-	-	-	3394.00	3394.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	87.17	0.00	100.67	1.123	0.00	6.46	180.205	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.08	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3394.00	848.50	3394.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	96.70	0.00	100.67	1.123	6.46	10.53	365.846	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.08	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3394.00	848.50	3394.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	98.27	0.00	100.67	1.123	10.53	14.21	499.753	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.08	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3394.00	848.50	3394.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	113.00	28.25	99.00	0.00	100.67	1.123	14.21	17.71	624.967	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	90.08	0.000	0.00	0.00	0.000	A
A-B	35.00	8.75	35.00	0.00	-	-	-	-	-	-
A-C	3394.00	848.50	3394.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	57.77	3.85	180.205	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	128.18	8.55	365.846	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	185.90	12.39	499.753	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	239.62	15.97	624.967	F	F
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 - Childerditch Lane	T-Junction	One-way from A to C	A,B,C		59.15	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Childerditch Lane S		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.20		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.50										0	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475.457	0.055	0.139	0.087	0.198
1	B-C	620.810	0.060	0.153	-	-
1	C-B	573.963	0.141	0.141	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3364.00	100.000
B	FLAT	✓	49.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	25.000	3339.000
	B	0.000	0.000	49.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.45	59.15	0.78	F	49.00	49.00	43.65	53.45	0.73	43.82	53.66
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	25.00	25.00	-	-	-	-	-
A-C	-	-	-	-	3339.00	3339.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	46.10	0.00	109.66	0.447	0.00	0.73	54.576	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.26	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3339.00	834.75	3339.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.85	0.00	109.66	0.447	0.73	0.76	58.826	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.26	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3339.00	834.75	3339.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.94	0.00	109.66	0.447	0.76	0.78	59.064	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.26	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3339.00	834.75	3339.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	49.00	12.25	48.97	0.00	109.66	0.447	0.78	0.78	59.150	F
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	99.26	0.000	0.00	0.00	0.000	A
A-B	25.00	6.25	25.00	0.00	-	-	-	-	-	-
A-C	3339.00	834.75	3339.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	9.14	0.61	54.576	F	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.22	0.75	58.826	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.57	0.77	59.064	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.72	0.78	59.150	F	E
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 15 & 16 A128 - The Avenue & A128 - Running Waters Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\ARCADY
Report generation date: 22/01/2016 17:30:37

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Junction 15 - Arm A	0.74	9.10	0.43	A	308.06	2336.66	1.75	F
Junction 15 - Arm B	2.09	11.09	0.68	B	274.10	2046.36	1.68	F
Junction 15 - Arm C	12.40	53.85	0.98	F	3.45	16.94	0.78	C
Junction 16 - Arm C	7.27	32.51	0.89	D	12.40	55.45	0.98	F
Junction 16 - Arm D	331.84	2454.83	1.79	F	1.33	14.96	0.57	B
Junction 16 - Arm E	448.02	1995.45	1.65	F	4.25	19.36	0.81	C
	A1 - Option 1							
Junction 15 - Arm A	0.80	9.59	0.45	A	330.97	2611.64	1.84	F
Junction 15 - Arm B	2.72	13.42	0.73	B	337.37	2497.39	1.82	F
Junction 15 - Arm C	12.40	54.23	0.98	F	5.13	23.61	0.84	C
Junction 16 - Arm C	12.35	52.98	0.94	F	12.40	56.28	0.98	F
Junction 16 - Arm D	366.88	2829.76	1.91	F	1.56	16.50	0.61	C
Junction 16 - Arm E	542.61	2384.15	1.78	F	7.77	33.05	0.89	D
	A1 - Option 2							
Junction 15 - Arm A	0.81	9.64	0.45	A	333.63	2651.07	1.85	F
Junction 15 - Arm B	2.99	14.34	0.75	B	347.95	2567.29	1.84	F
Junction 15 - Arm C	12.40	55.05	0.98	F	5.68	25.83	0.86	D
Junction 16 - Arm C	11.18	48.25	0.93	E	12.40	56.36	0.98	F
Junction 16 - Arm D	357.56	2849.85	1.92	F	1.54	16.41	0.61	C
Junction 16 - Arm E	559.45	2470.40	1.80	F	9.08	38.14	0.91	E
	A1 - Option 3							
Junction 15 - Arm A	11.12	136.72	0.99	F	327.98	2532.34	1.81	F
Junction 15 - Arm B	34.48	155.02	1.05	F	299.20	2212.76	1.73	F
Junction 15 - Arm C	12.40	54.02	0.98	F	5.47	24.95	0.85	C
Junction 16 - Arm C	12.40	53.12	0.97	F	12.40	55.69	0.98	F
Junction 16 - Arm D	349.62	2631.26	1.84	F	1.46	15.79	0.60	C
Junction 16 - Arm E	453.44	1993.99	1.65	F	7.28	31.19	0.89	D
	A1 - Option 4							
Junction 15 - Arm A	9.10	107.96	0.97	F	438.34	3321.08	2.07	F
Junction 15 - Arm B	27.11	123.75	1.03	F	372.09	2826.05	1.91	F
Junction 15 - Arm C	12.40	54.14	0.98	F	7.39	32.68	0.89	D
Junction 16 - Arm C	12.40	52.43	0.96	F	12.40	55.68	0.98	F
Junction 16 - Arm D	388.96	3245.12	2.05	F	1.59	17.18	0.62	C
Junction 16 - Arm E	675.16	2962.78	1.96	F	10.70	44.45	0.93	E

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 22/01/2016 17:30:32

File summary

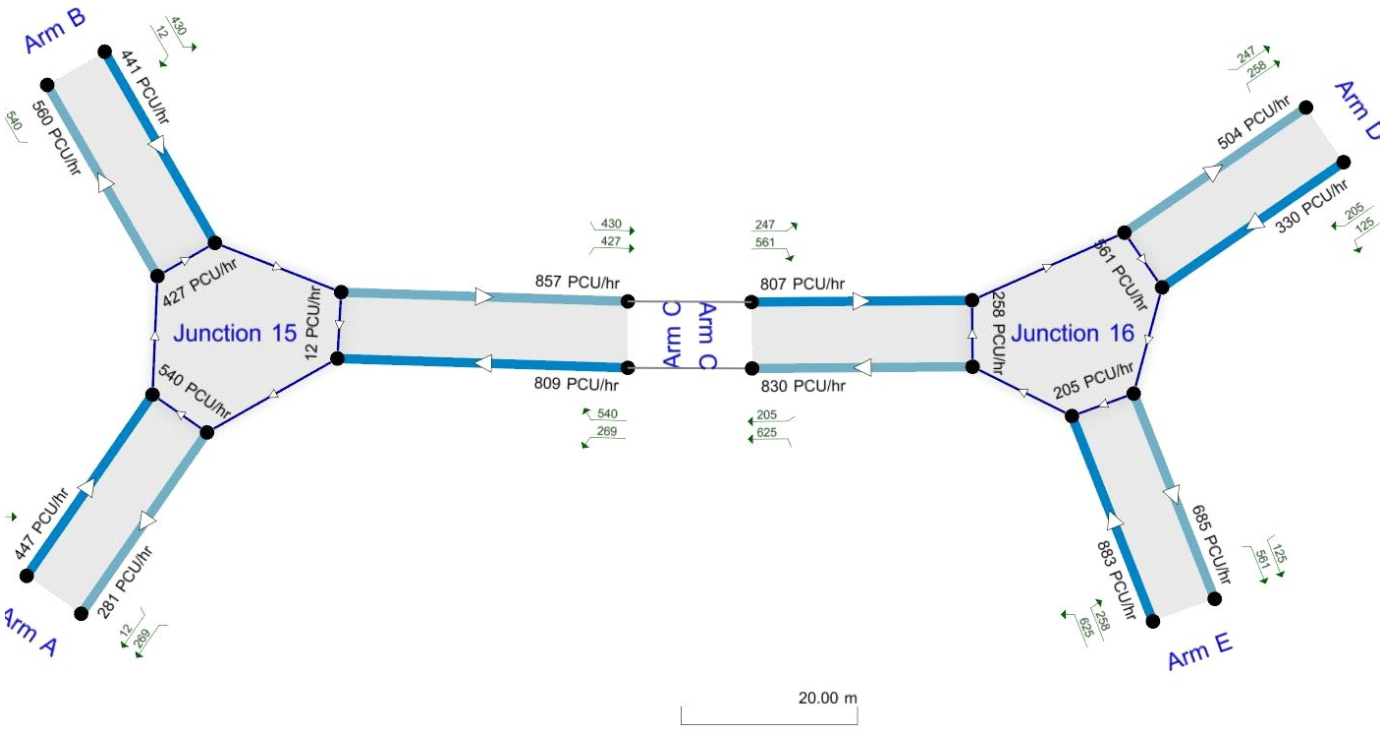
Title	A128 Ingrave Road - The Avenue - A128 Brentwood Road - Running Waters
Location	Brentwood
Site Number	15, 16
Date	23/07/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Time Segment: (17:00-17:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	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	Relations
Baseline, AM	Baseline	AM		Varies by Arm	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	30.50	D
16	16	(untitled)	Mini-roundabout	C,D,E	1527.50	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	**A**	A	The Avenue	
15	**B**	B	Ingrave Road	
15	**C**	C	Brentwood Road	
16	**C**	C	Brentwood Road	
16	**D**	D	Running Waters	
16	**E**	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	**A**	0.00	99999.00		0.00
15	**B**	0.00	99999.00		0.00
15	**C**	0.00	99999.00		0.00
16	**C**	0.00	99999.00		0.00
16	**D**	0.00	99999.00		0.00
16	**E**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	**A**	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	**B**	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	**C**	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	**C**	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	**D**	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	**E**	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	296.00	100.000
15	B	FLAT	✓	686.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	763.00	100.000
16	E	FLAT	✓	1167.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	269.000
	B	114.000	0.000	572.000
	C	800.000	603.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.17	0.00	0.83
	C	0.57	0.43	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	222.000	617.000
	D	470.000	0.000	293.000
	E	935.000	232.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.26	0.74
	D	0.62	0.00	0.38
	E	0.80	0.20	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	0.43	9.10	0.74	A	296.00	296.00	43.85	8.89	0.73	43.87	8.89
15	B	0.68	11.09	2.09	B	686.00	686.00	121.37	10.62	2.02	121.50	10.63
15	C	0.98	53.85	12.40	F	841.63	841.63	684.45	48.79	11.41	689.60	49.16
16	C	0.89	32.51	7.27	D	838.58	838.58	381.53	27.30	6.36	383.20	27.42
16	D	1.79	2454.83	331.84	F	763.00	763.00	9865.58	775.80	164.43	17607.02	1384.56
16	E	1.65	1995.45	448.02	F	1167.00	1167.00	13174.65	677.36	219.58	21695.87	1115.47

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	296.00	74.00	293.06	585.82	356.65	0.00	691.57	474.81	0.428	0.00	0.74	8.970	A
15	B	686.00	171.50	677.89	383.38	266.33	0.00	1012.31	584.86	0.678	0.00	2.03	10.527	B
15	C	879.42	219.86	829.82	831.57	112.65	0.00	896.74	906.53	0.981	0.00	12.40	40.230	E
16	C	831.57	207.89	807.49	879.42	150.32	0.00	941.63	939.68	0.883	0.00	6.02	23.728	C
16	D	763.00	190.75	444.17	363.98	593.83	0.00	449.74	439.17	1.697	0.00	79.71	339.443	F
16	E	1167.00	291.75	756.14	764.39	273.60	0.00	763.50	771.28	1.528	0.00	102.72	257.906	F

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	296.00	74.00	295.98	586.70	356.32	0.00	691.77	468.03	0.428	0.74	0.74	9.094	A
15	B	686.00	171.50	685.82	383.32	268.98	0.00	1010.31	592.30	0.679	2.03	2.07	11.078	B
15	C	829.05	207.26	829.05	840.82	113.97	0.00	895.91	905.75	0.925	12.40	12.40	53.845	F
16	C	840.82	210.21	837.76	829.05	140.45	0.00	948.02	939.73	0.887	6.02	6.79	30.963	D
16	D	763.00	190.75	426.98	362.12	616.09	0.00	427.05	438.45	1.787	79.71	163.71	1038.376	F
16	E	1167.00	291.75	706.48	780.05	263.02	0.00	706.56	770.94	1.652	102.72	217.84	824.421	F

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	296.00	74.00	295.99	586.71	356.31	0.00	691.78	468.03	0.428	0.74	0.74	9.095	A
15	B	686.00	171.50	685.94	383.31	268.99	0.00	1010.30	592.30	0.679	2.07	2.09	11.091	B
15	C	829.04	207.26	829.04	840.94	113.99	0.00	895.89	905.75	0.925	12.40	12.40	53.846	F
16	C	840.94	210.24	839.69	829.04	140.48	0.00	948.01	939.73	0.887	6.79	7.10	32.059	D
16	D	763.00	190.75	426.78	362.66	617.51	0.00	426.80	438.45	1.788	163.71	247.77	1746.105	F
16	E	1167.00	291.75	706.62	781.39	262.89	0.00	706.64	770.94	1.651	217.84	332.94	1409.669	F

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	296.00	74.00	296.00	586.72	356.31	0.00	691.78	468.03	0.428	0.74	0.74	9.095	A
15	B	686.00	171.50	685.97	383.31	269.00	0.00	1010.29	592.30	0.679	2.09	2.09	11.093	B
15	C	829.03	207.26	829.03	840.97	114.00	0.00	895.89	905.75	0.925	12.40	12.40	53.846	F
16	C	840.97	210.24	840.29	829.03	140.49	0.00	948.00	939.73	0.887	7.10	7.27	32.513	D
16	D	763.00	190.75	426.72	362.83	617.95	0.00	426.73	438.45	1.788	247.77	331.84	2454.827	F
16	E	1167.00	291.75	706.67	781.81	262.85	0.00	706.68	770.94	1.651	332.94	448.02	1995.453	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	10.46	0.70	8.970	A	A
15	B	27.95	1.86	10.527	B	B
15	C	126.45	8.43	40.230	E	D
16	C	72.10	4.81	23.728	C	C
16	D	606.74	40.45	339.443	F	F
16	E	782.29	52.15	257.906	F	F

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.09	0.74	9.094	A	A
15	B	30.83	2.06	11.078	B	B
15	C	186.00	12.40	53.845	F	D
16	C	97.11	6.47	30.963	D	C
16	D	1825.69	121.71	1038.376	F	F
16	E	2404.24	160.28	824.421	F	F

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.14	0.74	9.095	A	A
15	B	31.22	2.08	11.091	B	B
15	C	186.00	12.40	53.846	F	D
16	C	104.42	6.96	32.059	D	C
16	D	3086.11	205.74	1746.105	F	F
16	E	4130.89	275.39	1409.669	F	F

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.16	0.74	9.095	A	A
15	B	31.37	2.09	11.093	B	B
15	C	186.00	12.40	53.846	F	D
16	C	107.90	7.19	32.513	D	C
16	D	4347.04	289.80	2454.827	F	F
16	E	5857.23	390.48	1995.453	F	F

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	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	Relations
Baseline, PM	Baseline	PM		Varies by Arm	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	1449.17	F
16	16	(untitled)	Mini-roundabout	C,D,E	33.77	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	A	A	The Avenue	
15	B	B	Ingrave Road	
15	C	C	Brentwood Road	
16	C	C	Brentwood Road	
16	D	D	Running Waters	
16	E	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	A	0.00	99999.00		0.00
15	B	0.00	99999.00		0.00
15	C	0.00	99999.00		0.00
16	C	0.00	99999.00		0.00
16	D	0.00	99999.00		0.00
16	E	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	A	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	B	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	C	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	C	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	D	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	E	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	727.00	100.000
15	B	FLAT	✓	707.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	323.00	100.000
16	E	FLAT	✓	809.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	37.000	690.000
	B	20.000	0.000	687.000
	C	244.000	498.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.03	0.00	0.97
	C	0.33	0.67	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	477.000	897.000
	D	201.000	0.000	122.000
	E	548.000	261.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.35	0.65
	D	0.62	0.00	0.38
	E	0.68	0.32	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	1.75	2336.66	308.06	F	727.00	727.00	9194.33	758.82	153.24	16026.83	1322.71
15	B	1.68	2046.36	274.10	F	707.00	707.00	7985.13	677.66	133.09	13331.53	1131.39
15	C	0.78	16.94	3.45	C	745.29	745.29	191.47	15.41	3.19	191.85	15.44
16	C	0.98	55.45	12.40	F	818.28	818.28	684.02	50.16	11.40	689.32	50.54
16	D	0.57	14.96	1.33	B	323.00	323.00	77.30	14.36	1.29	77.39	14.38
16	E	0.81	19.36	4.25	C	809.00	809.00	237.33	17.60	3.96	237.87	17.64

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	727.00	181.75	426.95	250.91	485.21	0.00	432.65	419.58	1.680	0.00	75.01	331.246	F
15	B	707.00	176.75	465.63	506.94	405.22	0.00	473.35	452.75	1.494	0.00	60.34	253.258	F
15	C	735.16	183.79	722.95	857.68	13.17	0.00	959.73	959.96	0.766	0.00	3.05	14.541	B
16	C	857.68	214.42	808.08	735.16	255.95	0.00	873.25	852.18	0.982	0.00	12.40	41.167	E
16	D	323.00	80.75	317.80	536.48	527.55	0.00	562.40	533.91	0.574	0.00	1.30	14.429	B
16	E	809.00	202.25	793.34	647.58	197.77	0.00	996.05	894.14	0.812	0.00	3.91	16.670	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	727.00	181.75	415.72	257.66	501.48	0.00	415.80	416.91	1.748	75.01	152.83	997.892	F
15	B	707.00	176.75	422.62	522.64	394.56	0.00	422.74	450.84	1.672	60.34	131.44	830.484	F
15	C	748.36	187.09	747.19	805.23	11.96	0.00	960.50	959.99	0.779	3.05	3.34	16.714	C
16	C	805.23	201.31	805.23	748.36	260.72	0.00	870.16	847.42	0.925	12.40	12.40	55.437	F
16	D	323.00	80.75	322.92	540.26	525.68	0.00	563.49	508.98	0.573	1.30	1.32	14.951	B
16	E	809.00	202.25	808.12	647.65	200.95	0.00	993.93	916.98	0.814	3.91	4.13	19.156	C

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	727.00	181.75	416.42	258.06	502.34	0.00	416.44	416.90	1.746	152.83	230.48	1667.281	F
15	B	707.00	176.75	421.83	523.54	395.22	0.00	421.86	450.85	1.676	131.44	202.73	1437.377	F
15	C	748.77	187.19	748.47	805.12	11.93	0.00	960.51	959.99	0.780	3.34	3.42	16.896	C
16	C	805.12	201.28	805.12	748.77	260.90	0.00	870.05	847.42	0.925	12.40	12.40	55.446	F
16	D	323.00	80.75	322.97	540.40	525.61	0.00	563.53	508.98	0.573	1.32	1.33	14.957	B
16	E	809.00	202.25	808.69	647.60	200.98	0.00	993.91	916.98	0.814	4.13	4.21	19.304	C

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	727.00	181.75	416.67	258.14	502.53	0.00	416.69	416.90	1.745	230.48	308.06	2336.657	F
15	B	707.00	176.75	421.55	523.73	395.47	0.00	421.56	450.86	1.677	202.73	274.10	2046.362	F
15	C	748.88	187.22	748.75	805.09	11.92	0.00	960.52	959.99	0.780	3.42	3.45	16.945	C
16	C	805.09	201.27	805.09	748.88	260.95	0.00	870.01	847.42	0.925	12.40	12.40	55.447	F
16	D	323.00	80.75	322.98	540.44	525.59	0.00	563.54	508.98	0.573	1.33	1.33	14.959	B
16	E	809.00	202.25	808.84	647.59	200.99	0.00	993.91	916.98	0.814	4.21	4.25	19.358	C

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	571.63	38.11	331.246	F	F
15	B	464.23	30.95	253.258	F	F
15	C	40.45	2.70	14.541	B	B
16	C	126.02	8.40	41.167	E	D
16	D	17.85	1.19	14.429	B	B
16	E	50.47	3.36	16.670	C	B

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	1708.86	113.92	997.892	F	F
15	B	1438.41	95.89	830.484	F	F
15	C	48.65	3.24	16.714	C	B
16	C	186.00	12.40	55.437	F	E
16	D	19.67	1.31	14.951	B	B
16	E	60.71	4.05	19.156	C	B

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	2874.82	191.65	1667.281	F	F
15	B	2506.28	167.09	1437.377	F	F
15	C	50.81	3.39	16.896	C	B
16	C	186.00	12.40	55.446	F	E
16	D	19.85	1.32	14.957	B	B
16	E	62.66	4.18	19.304	C	B

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	4039.02	269.27	2336.657	F	F
15	B	3576.21	238.41	2046.362	F	F
15	C	51.56	3.44	16.945	C	B
16	C	186.00	12.40	55.447	F	E
16	D	19.93	1.33	14.959	B	B
16	E	63.50	4.23	19.358	C	B

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	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	Relationship
Option 1, AM	Option 1	AM		Varies by Arm	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	30.98	D
16	16	(untitled)	Mini-roundabout	C,D,E	1799.60	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	**A**	A	The Avenue	
15	**B**	B	Ingrave Road	
15	**C**	C	Brentwood Road	
16	**C**	C	Brentwood Road	
16	**D**	D	Running Waters	
16	**E**	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	**A**	0.00	99999.00		0.00
15	**B**	0.00	99999.00		0.00
15	**C**	0.00	99999.00		0.00
16	**C**	0.00	99999.00		0.00
16	**D**	0.00	99999.00		0.00
16	**E**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	**A**	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	**B**	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	**C**	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	**C**	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	**D**	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	**E**	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	303.00	100.000
15	B	FLAT	✓	738.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	781.00	100.000
16	E	FLAT	✓	1271.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	28.000	275.000
	B	124.000	0.000	614.000
	C	806.000	686.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.17	0.00	0.83
	C	0.54	0.46	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	231.000	658.000
	D	475.000	0.000	306.000
	E	1019.000	252.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.26	0.74
	D	0.61	0.00	0.39
	E	0.80	0.20	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	0.45	9.59	0.80	A	303.00	303.00	47.25	9.36	0.79	47.28	9.36
15	B	0.73	13.42	2.72	B	738.00	738.00	155.81	12.67	2.60	156.03	12.69
15	C	0.98	54.23	12.40	F	835.84	835.84	684.34	49.12	11.41	689.53	49.50
16	C	0.94	52.98	12.35	F	886.01	886.01	591.82	40.08	9.86	596.65	40.41
16	D	1.91	2829.76	366.88	F	781.00	781.00	10904.65	837.75	181.74	20776.02	1596.11
16	E	1.78	2384.15	542.61	F	1271.00	1271.00	16016.41	756.09	266.94	28344.92	1338.08

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	299.83	567.50	378.95	0.00	678.14	461.27	0.447	0.00	0.79	9.440	A
15	B	738.00	184.50	727.62	406.66	272.12	0.00	1007.94	600.70	0.732	0.00	2.60	12.423	B
15	C	873.79	218.45	824.19	877.48	122.26	0.00	890.66	904.16	0.981	0.00	12.40	40.468	E
16	C	877.48	219.37	843.00	873.79	151.65	0.00	940.77	938.88	0.933	0.00	8.62	30.328	D
16	D	781.00	195.25	428.44	370.70	623.95	0.00	433.30	429.54	1.802	0.00	88.14	388.861	F
16	E	1271.00	317.75	764.87	791.82	260.58	0.00	770.91	779.62	1.649	0.00	126.53	312.579	F

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	302.97	568.65	378.50	0.00	678.42	461.37	0.447	0.79	0.80	9.587	A
15	B	738.00	184.50	737.67	406.49	274.97	0.00	1005.79	600.60	0.734	2.60	2.68	13.387	B
15	C	823.20	205.80	823.20	888.70	123.95	0.00	889.59	904.17	0.925	12.40	12.40	54.228	F
16	C	888.70	222.18	880.57	823.20	141.96	0.00	947.05	938.88	0.938	8.62	10.66	46.020	E
16	D	781.00	195.25	409.70	370.77	651.76	0.00	409.75	429.55	1.906	88.14	180.96	1195.128	F
16	E	1271.00	317.75	715.98	812.28	249.18	0.00	716.03	779.63	1.775	126.53	265.29	992.030	F

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	302.99	568.68	378.49	0.00	678.42	461.37	0.447	0.80	0.80	9.588	A
15	B	738.00	184.50	737.89	406.49	274.99	0.00	1005.78	600.60	0.734	2.68	2.70	13.416	B
15	C	823.18	205.80	823.18	888.90	123.98	0.00	889.57	904.17	0.925	12.40	12.40	54.227	F
16	C	888.90	222.23	884.73	823.18	142.02	0.00	947.01	938.88	0.939	10.66	11.70	50.542	F
16	D	781.00	195.25	409.26	371.91	654.84	0.00	409.27	429.55	1.908	180.96	273.90	2011.800	F
16	E	1271.00	317.75	716.29	815.19	248.91	0.00	716.31	779.63	1.774	265.29	403.96	1687.962	F

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	303.00	568.68	378.48	0.00	678.44	461.37	0.447	0.80	0.80	9.588	A
15	B	738.00	184.50	737.95	406.48	275.00	0.00	1005.77	600.60	0.734	2.70	2.72	13.424	B
15	C	823.18	205.79	823.18	888.95	123.99	0.00	889.56	904.17	0.925	12.40	12.40	54.228	F
16	C	888.95	222.24	886.35	823.18	142.05	0.00	946.99	938.88	0.939	11.70	12.35	52.982	F
16	D	781.00	195.25	409.07	372.36	656.04	0.00	409.07	429.55	1.909	273.90	366.88	2829.762	F
16	E	1271.00	317.75	716.43	816.31	248.79	0.00	716.44	779.63	1.774	403.96	542.61	2384.152	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.24	0.75	9.440	A	A
15	B	35.07	2.34	12.423	B	B
15	C	126.34	8.42	40.468	E	D
16	C	96.06	6.40	30.328	D	C
16	D	668.98	44.60	388.861	F	F
16	E	959.08	63.94	312.579	F	F

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.95	0.80	9.587	A	A
15	B	39.69	2.65	13.387	B	B
15	C	186.00	12.40	54.228	F	D
16	C	146.70	9.78	46.020	E	D
16	D	2018.30	134.55	1195.128	F	F
16	E	2938.67	195.91	992.030	F	F

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	12.01	0.80	9.588	A	A
15	B	40.39	2.69	13.416	B	B
15	C	186.00	12.40	54.227	F	D
16	C	168.37	11.22	50.542	F	D
16	D	3411.49	227.43	2011.800	F	F
16	E	5019.39	334.63	1687.962	F	F

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	12.04	0.80	9.588	A	A
15	B	40.67	2.71	13.424	B	B
15	C	186.00	12.40	54.228	F	D
16	C	180.70	12.05	52.982	F	D
16	D	4805.88	320.39	2829.762	F	F
16	E	7099.27	473.28	2384.152	F	F

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	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	Relationship
Option 1, PM	Option 1	PM		Varies by Arm	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	1672.86	F
16	16	(untitled)	Mini-roundabout	C,D,E	39.46	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	A	A	The Avenue	
15	B	B	Ingrave Road	
15	C	C	Brentwood Road	
16	C	C	Brentwood Road	
16	D	D	Running Waters	
16	E	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	A	0.00	99999.00		0.00
15	B	0.00	99999.00		0.00
15	C	0.00	99999.00		0.00
16	C	0.00	99999.00		0.00
16	D	0.00	99999.00		0.00
16	E	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	A	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	B	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	C	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	C	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	D	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	E	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	734.00	100.000
15	B	FLAT	✓	774.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	344.00	100.000
16	E	FLAT	✓	885.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	38.000	696.000
	B	21.000	0.000	753.000
	C	251.000	553.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.03	0.00	0.97
	C	0.31	0.69	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	483.000	963.000
	D	207.000	0.000	137.000
	E	604.000	281.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.33	0.67
	D	0.60	0.00	0.40
	E	0.68	0.32	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	1.84	2611.64	330.97	F	734.00	734.00	9873.31	807.08	164.56	18081.73	1478.07
15	B	1.82	2497.39	337.37	F	774.00	774.00	9878.20	765.75	164.64	17909.40	1388.33
15	C	0.84	23.61	5.13	C	804.76	804.76	271.89	20.27	4.53	272.71	20.33
16	C	0.98	56.28	12.40	F	806.95	806.95	683.81	50.84	11.40	689.19	51.24
16	D	0.61	16.50	1.56	C	344.00	344.00	90.36	15.76	1.51	90.49	15.78
16	E	0.89	33.05	7.77	D	885.00	885.00	407.38	27.62	6.79	409.21	27.74

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	411.82	254.12	531.80	0.00	416.94	410.97	1.760	0.00	80.54	368.178	F
15	B	774.00	193.50	469.83	553.12	390.50	0.00	476.01	461.18	1.626	0.00	76.04	313.930	F
15	C	789.73	197.43	773.17	847.58	12.75	0.00	960.00	960.14	0.823	0.00	4.14	17.950	C
16	C	847.58	211.90	797.98	789.73	272.80	0.00	862.34	852.38	0.983	0.00	12.40	41.616	E
16	D	344.00	86.00	337.92	539.35	531.44	0.00	560.15	529.56	0.614	0.00	1.52	15.802	C
16	E	885.00	221.25	859.19	666.02	203.34	0.00	992.35	907.62	0.892	0.00	6.45	23.733	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	399.80	263.20	554.40	0.00	399.86	409.01	1.836	80.54	164.10	1113.206	F
15	B	774.00	193.50	426.14	575.10	379.10	0.00	426.22	460.19	1.816	76.04	163.01	1022.791	F
15	C	808.76	202.19	806.04	793.68	11.56	0.00	960.75	960.16	0.842	4.14	4.82	22.617	C
16	C	793.68	198.42	793.68	808.76	279.99	0.00	857.69	849.32	0.925	12.40	12.40	56.243	F
16	D	344.00	86.00	343.90	545.10	528.57	0.00	561.81	512.61	0.612	1.52	1.55	16.495	C
16	E	885.00	221.25	881.81	665.53	206.94	0.00	989.95	922.48	0.894	6.45	7.25	31.441	D

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	400.19	264.17	556.59	0.00	400.21	408.98	1.834	164.10	247.55	1862.249	F
15	B	774.00	193.50	425.40	577.31	379.47	0.00	425.42	460.22	1.819	163.01	250.16	1759.266	F
15	C	810.06	202.51	809.21	793.33	11.54	0.00	960.76	960.16	0.843	4.82	5.03	23.372	C
16	C	793.33	198.33	793.33	810.06	280.57	0.00	857.31	849.32	0.925	12.40	12.40	56.269	F
16	D	344.00	86.00	343.96	545.57	528.34	0.00	561.95	512.61	0.612	1.55	1.56	16.501	C
16	E	885.00	221.25	883.66	665.32	206.98	0.00	989.93	922.48	0.894	7.25	7.59	32.557	D

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	400.33	264.43	557.17	0.00	400.34	408.97	1.833	247.55	330.97	2611.640	F
15	B	774.00	193.50	425.15	577.90	379.60	0.00	425.16	460.23	1.820	250.16	337.37	2497.388	F
15	C	810.48	202.62	810.07	793.22	11.54	0.00	960.76	960.16	0.844	5.03	5.13	23.614	C
16	C	793.22	198.30	793.22	810.48	280.76	0.00	857.19	849.32	0.925	12.40	12.40	56.278	F
16	D	344.00	86.00	343.98	545.72	528.26	0.00	561.99	512.60	0.612	1.56	1.56	16.502	C
16	E	885.00	221.25	884.25	665.25	206.99	0.00	989.92	922.48	0.894	7.59	7.77	33.046	D

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	612.32	40.82	368.178	F	F
15	B	580.11	38.67	313.930	F	F
15	C	52.78	3.52	17.950	C	B
16	C	125.81	8.39	41.616	E	D
16	D	20.66	1.38	15.802	C	B
16	E	76.75	5.12	23.733	C	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	1834.82	122.32	1113.206	F	F
15	B	1792.91	119.53	1022.791	F	F
15	C	68.64	4.58	22.617	C	C
16	C	186.00	12.40	56.243	F	E
16	D	23.04	1.54	16.495	C	B
16	E	103.81	6.92	31.441	D	C

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	3087.32	205.82	1862.249	F	F
15	B	3098.74	206.58	1759.266	F	F
15	C	74.14	4.94	23.372	C	C
16	C	186.00	12.40	56.269	F	E
16	D	23.28	1.55	16.501	C	B
16	E	111.54	7.44	32.557	D	C

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	4338.84	289.26	2611.640	F	F
15	B	4406.45	293.76	2497.388	F	F
15	C	76.32	5.09	23.614	C	C
16	C	186.00	12.40	56.278	F	E
16	D	23.38	1.56	16.502	C	B
16	E	115.29	7.69	33.046	D	C

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	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	Relationship
Option 2, AM	Option 2	AM		Varies by Arm	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	31.34	D
16	16	(untitled)	Mini-roundabout	C,D,E	1839.80	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	**A**	A	The Avenue	
15	**B**	B	Ingrave Road	
15	**C**	C	Brentwood Road	
16	**C**	C	Brentwood Road	
16	**D**	D	Running Waters	
16	**E**	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	**A**	0.00	99999.00		0.00
15	**B**	0.00	99999.00		0.00
15	**C**	0.00	99999.00		0.00
16	**C**	0.00	99999.00		0.00
16	**D**	0.00	99999.00		0.00
16	**E**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	**A**	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	**B**	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	**C**	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	**C**	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	**D**	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	**E**	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	303.00	100.000
15	B	FLAT	✓	762.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	759.00	100.000
16	E	FLAT	✓	1284.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	37.000	266.000
	B	145.000	0.000	617.000
	C	786.000	700.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.19	0.00	0.81
	C	0.53	0.47	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	222.000	660.000
	D	454.000	0.000	305.000
	E	1034.000	250.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.25	0.75
	D	0.60	0.00	0.40
	E	0.81	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	0.45	9.64	0.81	A	303.00	303.00	47.51	9.41	0.79	47.54	9.41
15	B	0.75	14.34	2.99	B	762.00	762.00	170.84	13.45	2.85	171.11	13.47
15	C	0.98	55.05	12.40	F	823.60	823.60	684.10	49.84	11.40	689.36	50.22
16	C	0.93	48.25	11.18	E	879.87	879.87	545.02	37.17	9.08	548.98	37.44
16	D	1.92	2849.85	357.56	F	759.00	759.00	10611.11	838.82	176.85	20301.95	1604.90
16	E	1.80	2470.40	559.45	F	1284.00	1284.00	16529.75	772.42	275.50	29699.42	1387.82

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	299.81	572.40	382.57	0.00	675.97	471.37	0.448	0.00	0.80	9.493	A
15	B	762.00	190.50	750.63	419.18	263.20	0.00	1014.66	625.39	0.751	0.00	2.84	13.125	B
15	C	861.74	215.43	812.14	870.99	142.84	0.00	877.63	892.72	0.982	0.00	12.40	40.986	E
16	C	870.99	217.75	838.83	861.74	147.95	0.00	943.17	940.80	0.923	0.00	8.04	28.871	D
16	D	759.00	189.75	417.66	359.08	627.70	0.00	422.55	415.72	1.796	0.00	85.34	387.890	F
16	E	1284.00	321.00	759.86	795.53	249.82	0.00	765.66	778.64	1.677	0.00	131.04	325.458	F

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	302.97	573.85	381.99	0.00	676.31	471.46	0.448	0.80	0.80	9.641	A
15	B	762.00	190.50	761.60	418.99	265.98	0.00	1012.57	625.29	0.753	2.84	2.94	14.287	B
15	C	810.91	202.73	810.91	882.65	144.92	0.00	876.31	892.73	0.925	12.40	12.40	55.049	F
16	C	882.65	220.66	875.60	810.91	138.74	0.00	949.13	940.80	0.930	8.04	9.80	42.721	E
16	D	759.00	189.75	396.35	359.13	655.21	0.00	396.41	415.72	1.915	85.34	176.00	1199.988	F
16	E	1284.00	321.00	712.57	814.48	237.08	0.00	712.62	778.65	1.802	131.04	273.89	1029.833	F

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	302.99	573.88	381.98	0.00	676.32	471.46	0.448	0.80	0.81	9.642	A
15	B	762.00	190.50	761.87	418.98	265.99	0.00	1012.56	625.29	0.753	2.94	2.98	14.327	B
15	C	810.88	202.72	810.88	882.88	144.97	0.00	876.28	892.73	0.925	12.40	12.40	55.050	F
16	C	882.88	220.72	879.45	810.88	138.79	0.00	949.10	940.80	0.930	9.80	10.66	46.384	E
16	D	759.00	189.75	395.95	360.15	658.09	0.00	395.97	415.72	1.917	176.00	266.76	2024.293	F
16	E	1284.00	321.00	712.84	817.20	236.84	0.00	712.85	778.65	1.801	273.89	416.68	1749.968	F

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	303.00	75.75	303.00	573.89	381.97	0.00	676.34	471.46	0.448	0.81	0.81	9.642	A
15	B	762.00	190.50	761.93	418.97	266.00	0.00	1012.56	625.29	0.753	2.98	2.99	14.341	B
15	C	810.88	202.72	810.88	882.94	144.99	0.00	876.27	892.73	0.925	12.40	12.40	55.051	F
16	C	882.94	220.74	880.87	810.88	138.81	0.00	949.08	940.80	0.930	10.66	11.18	48.254	E
16	D	759.00	189.75	395.78	360.53	659.15	0.00	395.79	415.72	1.918	266.76	357.56	2849.848	F
16	E	1284.00	321.00	712.95	818.20	236.74	0.00	712.96	778.65	1.801	416.68	559.45	2470.400	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.30	0.75	9.493	A	A
15	B	38.09	2.54	13.125	B	B
15	C	126.10	8.41	40.986	E	D
16	C	90.95	6.06	28.871	D	C
16	D	647.97	43.20	387.890	F	F
16	E	992.48	66.17	325.458	F	F

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	12.02	0.80	9.641	A	A
15	B	43.56	2.90	14.287	B	B
15	C	186.00	12.40	55.049	F	E
16	C	135.82	9.05	42.721	E	D
16	D	1960.02	130.67	1199.988	F	F
16	E	3036.97	202.46	1029.833	F	F

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	12.08	0.81	9.642	A	A
15	B	44.42	2.96	14.327	B	B
15	C	186.00	12.40	55.050	F	E
16	C	154.13	10.28	46.384	E	D
16	D	3320.68	221.38	2024.293	F	F
16	E	5179.32	345.29	1749.968	F	F

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	12.11	0.81	9.642	A	A
15	B	44.77	2.98	14.341	B	B
15	C	186.00	12.40	55.051	F	E
16	C	164.12	10.94	48.254	E	D
16	D	4682.43	312.16	2849.848	F	F
16	E	7320.97	488.06	2470.400	F	F

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	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	Relationship
Option 2, PM	Option 2	PM		Varies by Arm	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	1704.52	F
16	16	(untitled)	Mini-roundabout	C,D,E	41.68	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	A	A	The Avenue	
15	B	B	Ingrave Road	
15	C	C	Brentwood Road	
16	C	C	Brentwood Road	
16	D	D	Running Waters	
16	E	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	A	0.00	99999.00		0.00
15	B	0.00	99999.00		0.00
15	C	0.00	99999.00		0.00
16	C	0.00	99999.00		0.00
16	D	0.00	99999.00		0.00
16	E	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	A	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	B	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	C	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	C	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	D	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	E	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	734.00	100.000
15	B	FLAT	✓	786.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	342.00	100.000
16	E	FLAT	✓	901.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	38.000	696.000
	B	21.000	0.000	765.000
	C	252.000	567.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.03	0.00	0.97
	C	0.31	0.69	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	483.000	975.000
	D	207.000	0.000	135.000
	E	618.000	283.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.33	0.67
	D	0.61	0.00	0.39
	E	0.69	0.31	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	1.85	2651.07	333.63	F	734.00	734.00	9950.66	813.41	165.84	18350.96	1500.08
15	B	1.84	2567.29	347.95	F	786.00	786.00	10195.05	778.25	169.92	18709.94	1428.24
15	C	0.86	25.83	5.68	D	817.83	817.83	296.48	21.75	4.94	297.49	21.83
16	C	0.98	56.36	12.40	F	805.99	805.99	683.80	50.90	11.40	689.19	51.31
16	D	0.61	16.41	1.54	C	342.00	342.00	89.43	15.69	1.49	89.56	15.71
16	E	0.91	38.14	9.08	E	901.00	901.00	465.55	31.00	7.76	468.05	31.17

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	409.43	253.73	542.56	0.00	414.48	410.26	1.771	0.00	81.14	373.124	F
15	B	786.00	196.50	471.29	563.76	388.24	0.00	477.28	464.24	1.647	0.00	78.68	323.519	F
15	C	801.47	200.37	783.70	846.93	12.59	0.00	960.09	960.21	0.835	0.00	4.44	18.862	C
16	C	846.93	211.73	797.33	801.47	273.89	0.00	861.63	855.08	0.983	0.00	12.40	41.645	E
16	D	342.00	85.50	335.98	538.03	533.19	0.00	559.13	525.40	0.612	0.00	1.51	15.742	C
16	E	901.00	225.25	872.01	665.82	203.35	0.00	992.34	904.14	0.908	0.00	7.25	25.709	D

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	397.11	263.32	566.77	0.00	397.18	407.58	1.848	81.14	165.36	1129.301	F
15	B	786.00	196.50	427.55	587.33	376.55	0.00	427.62	462.60	1.838	78.68	168.29	1052.715	F
15	C	821.99	205.50	818.67	792.69	11.42	0.00	960.83	960.24	0.855	4.44	5.27	24.417	C
16	C	792.69	198.17	792.69	821.99	281.65	0.00	856.61	850.60	0.925	12.40	12.40	56.315	F
16	D	342.00	85.50	341.90	544.25	530.09	0.00	560.93	500.27	0.610	1.51	1.53	16.412	C
16	E	901.00	225.25	896.70	665.05	206.94	0.00	989.95	926.24	0.910	7.25	8.32	35.567	E

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	397.41	264.50	569.46	0.00	397.43	407.54	1.847	165.36	249.51	1889.968	F
15	B	786.00	196.50	426.81	590.04	376.83	0.00	426.83	462.64	1.841	168.29	258.09	1809.181	F
15	C	823.65	205.91	822.56	792.24	11.40	0.00	960.85	960.24	0.857	5.27	5.55	25.463	D
16	C	792.24	198.06	792.24	823.65	282.39	0.00	856.13	850.60	0.925	12.40	12.40	56.346	F
16	D	342.00	85.50	341.96	544.84	529.79	0.00	561.10	500.27	0.610	1.53	1.54	16.414	C
16	E	901.00	225.25	899.07	664.78	206.98	0.00	989.93	926.24	0.910	8.32	8.81	37.325	E

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	734.00	183.50	397.51	264.84	570.24	0.00	397.52	407.53	1.846	249.51	333.63	2651.073	F
15	B	786.00	196.50	426.55	590.82	376.93	0.00	426.56	462.65	1.843	258.09	347.95	2567.287	F
15	C	824.23	206.06	823.68	792.09	11.40	0.00	960.85	960.24	0.858	5.55	5.68	25.826	D
16	C	792.09	198.02	792.09	824.23	282.65	0.00	855.96	850.60	0.925	12.40	12.40	56.357	F
16	D	342.00	85.50	341.98	545.05	529.69	0.00	561.16	500.27	0.609	1.54	1.54	16.414	C
16	E	901.00	225.25	899.89	664.68	206.99	0.00	989.92	926.24	0.910	8.81	9.08	38.144	E

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	616.71	41.11	373.124	F	F
15	B	599.63	39.98	323.519	F	F
15	C	56.09	3.74	18.862	C	B
16	C	125.80	8.39	41.645	E	D
16	D	20.47	1.36	15.742	C	B

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	1848.81	123.25	1129.301	F	F
15	B	1852.29	123.49	1052.715	F	F
15	C	74.58	4.97	24.417	C	C
16	C	186.00	12.40	56.315	F	E
16	D	22.80	1.52	16.412	C	B
16	E	118.09	7.87	35.567	E	D

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	3111.56	207.44	1889.968	F	F
15	B	3197.84	213.19	1809.181	F	F
15	C	81.47	5.43	25.463	D	C
16	C	186.00	12.40	56.346	F	E
16	D	23.03	1.54	16.414	C	B
16	E	128.85	8.59	37.325	E	D

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	4373.58	291.57	2651.073	F	F
15	B	4545.29	303.02	2567.287	F	F
15	C	84.35	5.62	25.826	D	C
16	C	186.00	12.40	56.357	F	E
16	D	23.13	1.54	16.414	C	B
16	E	134.34	8.96	38.144	E	D

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	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	Relationship
Option 3, AM	Option 3	AM		Varies by Arm	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	107.93	F
16	16	(untitled)	Mini-roundabout	C,D,E	1560.31	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	**A**	A	The Avenue	
15	**B**	B	Ingrave Road	
15	**C**	C	Brentwood Road	
16	**C**	C	Brentwood Road	
16	**D**	D	Running Waters	
16	**E**	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	**A**	0.00	99999.00		0.00
15	**B**	0.00	99999.00		0.00
15	**C**	0.00	99999.00		0.00
16	**C**	0.00	99999.00		0.00
16	**D**	0.00	99999.00		0.00
16	**E**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	**A**	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	**B**	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	**C**	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	**C**	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	**D**	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	**E**	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	305.00	100.000
15	B	FLAT	✓	774.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	771.00	100.000
16	E	FLAT	✓	1182.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	28.000	277.000
	B	124.000	0.000	650.000
	C	811.000	602.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.16	0.00	0.84
	C	0.57	0.43	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	233.000	692.000
	D	469.000	0.000	302.000
	E	945.000	237.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.25	0.75
	D	0.61	0.00	0.39
	E	0.80	0.20	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	0.99	136.72	11.12	F	305.00	305.00	288.78	56.81	4.81	300.86	59.18
15	B	1.05	155.02	34.48	F	774.00	774.00	863.65	66.95	14.39	912.14	70.71
15	C	0.98	54.02	12.40	F	838.81	838.81	684.34	48.95	11.41	689.50	49.32
16	C	0.97	53.12	12.40	F	887.95	887.95	677.55	45.78	11.29	682.42	46.11
16	D	1.84	2631.26	349.62	F	771.00	771.00	10467.10	814.56	174.45	19200.42	1494.20
16	E	1.65	1993.99	453.44	F	1182.00	1182.00	13313.27	675.80	221.89	21932.86	1113.34

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	305.00	76.25	301.93	595.14	351.20	0.00	694.85	457.24	0.439	0.00	0.77	9.093	A
15	B	774.00	193.50	761.56	378.92	274.21	0.00	1006.37	597.69	0.769	0.00	3.11	14.071	B
15	C	873.94	218.48	824.34	913.76	122.01	0.00	890.82	907.44	0.981	0.00	12.40	40.460	E
16	C	913.76	228.44	866.21	873.94	154.27	0.00	939.08	937.57	0.973	0.00	11.89	37.592	E
16	D	771.00	192.75	425.45	372.46	648.02	0.00	430.37	435.50	1.791	0.00	86.39	378.747	F
16	E	1182.00	295.50	769.41	814.67	258.80	0.00	776.87	781.00	1.521	0.00	103.15	255.056	F

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	305.00	76.25	292.85	592.80	352.09	0.00	366.30	457.34	0.833	0.77	3.81	43.572	E
15	B	774.00	193.50	739.55	378.97	265.96	0.00	792.52	597.59	0.977	3.11	11.72	49.474	E
15	C	826.41	206.60	826.41	887.03	118.48	0.00	893.05	907.45	0.925	12.40	12.40	54.017	F
16	C	887.03	221.76	884.98	826.41	143.24	0.00	946.22	937.57	0.937	11.89	12.40	53.117	F
16	D	771.00	192.75	419.62	366.16	662.06	0.00	419.68	435.51	1.837	86.39	174.23	1128.430	F
16	E	1182.00	295.50	714.39	826.43	255.25	0.00	714.47	781.01	1.654	103.15	220.05	821.726	F

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	305.00	76.25	289.74	591.70	352.50	0.00	318.23	457.34	0.958	3.81	7.62	91.562	F
15	B	774.00	193.50	729.23	379.10	263.14	0.00	745.62	597.59	1.038	11.72	22.92	100.348	F
15	C	827.37	206.84	827.37	875.55	116.83	0.00	894.10	907.45	0.925	12.40	12.40	53.954	F
16	C	875.55	218.89	875.55	827.37	143.34	0.00	946.15	937.57	0.925	12.40	12.40	50.985	F
16	D	771.00	192.75	420.58	363.88	655.00	0.00	420.60	435.51	1.833	174.23	261.84	1878.469	F
16	E	1182.00	295.50	714.87	819.74	255.84	0.00	714.90	781.01	1.653	220.05	336.83	1408.269	F

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	305.00	76.25	291.01	591.55	352.56	0.00	307.02	457.34	0.993	7.62	11.12	136.722	F
15	B	774.00	193.50	727.76	379.27	264.29	0.00	735.26	597.59	1.053	22.92	34.48	155.015	F
15	C	827.51	206.88	827.51	875.46	116.59	0.00	894.25	907.45	0.925	12.40	12.40	53.945	F
16	C	875.46	218.86	875.46	827.51	143.48	0.00	946.06	937.57	0.925	12.40	12.40	50.989	F
16	D	771.00	192.75	419.88	364.00	654.94	0.00	419.89	435.51	1.836	261.84	349.62	2631.265	F
16	E	1182.00	295.50	715.58	819.40	255.41	0.00	715.59	781.01	1.652	336.83	453.44	1993.994	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	10.92	0.73	9.093	A	A
15	B	41.27	2.75	14.071	B	B
15	C	126.34	8.42	40.460	E	D
16	C	123.15	8.21	37.592	E	D
16	D	655.92	43.73	378.747	F	F
16	E	785.67	52.38	255.056	F	F

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	45.36	3.02	43.572	E	D
15	B	126.74	8.45	49.474	E	D
15	C	186.00	12.40	54.017	F	D
16	C	182.40	12.16	53.117	F	D
16	D	1954.69	130.31	1128.430	F	F
16	E	2424.00	161.60	821.726	F	F

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	90.24	6.02	91.562	F	F
15	B	263.86	17.59	100.348	F	F
15	C	186.00	12.40	53.954	F	D
16	C	186.00	12.40	50.985	F	D
16	D	3270.55	218.04	1878.469	F	F
16	E	4176.60	278.44	1408.269	F	F

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	142.26	9.48	136.722	F	F
15	B	431.78	28.79	155.015	F	F
15	C	186.00	12.40	53.945	F	D
16	C	186.00	12.40	50.989	F	D
16	D	4585.94	305.73	2631.265	F	F
16	E	5926.99	395.13	1993.994	F	F

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	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	Relationship
Option 3, PM	Option 3	PM		Varies by Arm	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	1539.00	F
16	16	(untitled)	Mini-roundabout	C,D,E	38.49	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	A	A	The Avenue	
15	B	B	Ingrave Road	
15	C	C	Brentwood Road	
16	C	C	Brentwood Road	
16	D	D	Running Waters	
16	E	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	A	0.00	99999.00		0.00
15	B	0.00	99999.00		0.00
15	C	0.00	99999.00		0.00
16	C	0.00	99999.00		0.00
16	D	0.00	99999.00		0.00
16	E	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	A	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	B	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	C	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	C	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	D	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	E	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	740.00	100.000
15	B	FLAT	✓	736.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	336.00	100.000
16	E	FLAT	✓	876.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	38.000	702.000
	B	21.000	0.000	715.000
	C	253.000	559.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.03	0.00	0.97
	C	0.31	0.69	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	488.000	926.000
	D	210.000	0.000	126.000
	E	609.000	267.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.35	0.65
	D	0.63	0.00	0.38
	E	0.70	0.30	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	1.81	2532.34	327.98	F	740.00	740.00	9780.06	792.98	163.00	17667.80	1432.52
15	B	1.73	2212.76	299.20	F	736.00	736.00	8740.43	712.53	145.67	15050.61	1226.95
15	C	0.85	24.95	5.47	C	813.03	813.03	287.97	21.25	4.80	288.90	21.32
16	C	0.98	55.69	12.40	F	815.19	815.19	683.97	50.34	11.40	689.30	50.73
16	D	0.60	15.79	1.46	C	336.00	336.00	84.64	15.11	1.41	84.75	15.13
16	E	0.89	31.19	7.28	D	876.00	876.00	384.75	26.35	6.41	386.36	26.46

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	740.00	185.00	421.36	256.70	537.59	0.00	426.65	420.76	1.734	0.00	79.66	356.243	F
15	B	736.00	184.00	469.21	559.23	399.72	0.00	476.25	463.75	1.545	0.00	66.70	276.537	F
15	C	798.38	199.60	780.90	855.54	13.39	0.00	959.59	959.69	0.832	0.00	4.37	18.654	C
16	C	855.54	213.89	805.94	798.38	259.52	0.00	870.94	864.59	0.982	0.00	12.40	41.260	E
16	D	336.00	84.00	330.30	537.67	527.79	0.00	562.26	517.37	0.598	0.00	1.42	15.175	C
16	E	876.00	219.00	851.47	651.66	206.44	0.00	990.29	883.65	0.885	0.00	6.13	22.958	C

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	740.00	185.00	408.59	265.80	560.39	0.00	408.65	415.10	1.811	79.66	162.51	1078.533	F
15	B	736.00	184.00	426.54	581.38	387.61	0.00	426.64	459.16	1.725	66.70	144.06	902.648	F
15	C	817.00	204.25	814.03	801.97	12.17	0.00	960.36	959.77	0.851	4.37	5.11	23.808	C
16	C	801.97	200.49	801.97	817.00	266.15	0.00	866.65	853.97	0.925	12.40	12.40	55.663	F
16	D	336.00	84.00	335.91	542.93	525.19	0.00	563.77	457.55	0.596	1.42	1.45	15.780	C
16	E	876.00	219.00	873.21	651.16	209.94	0.00	987.96	937.43	0.887	6.13	6.83	29.879	D

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	740.00	185.00	408.99	266.78	562.60	0.00	409.01	415.07	1.809	162.51	245.27	1805.271	F
15	B	736.00	184.00	425.84	583.60	387.99	0.00	425.87	459.19	1.728	144.06	221.60	1556.813	F
15	C	818.18	204.54	817.23	801.67	12.15	0.00	960.37	959.77	0.852	5.11	5.35	24.671	C
16	C	801.67	200.42	801.67	818.18	266.65	0.00	866.32	853.97	0.925	12.40	12.40	55.684	F
16	D	336.00	84.00	335.97	543.32	525.00	0.00	563.88	457.55	0.596	1.45	1.46	15.783	C
16	E	876.00	219.00	874.85	650.99	209.98	0.00	987.93	937.43	0.887	6.83	7.12	30.797	D

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	740.00	185.00	409.13	267.04	563.19	0.00	409.14	415.06	1.809	245.27	327.98	2532.339	F
15	B	736.00	184.00	425.60	584.20	388.12	0.00	425.61	459.20	1.729	221.60	299.20	2212.761	F
15	C	818.55	204.64	818.08	801.58	12.14	0.00	960.38	959.77	0.852	5.35	5.47	24.952	C
16	C	801.58	200.39	801.58	818.55	266.81	0.00	866.22	853.97	0.925	12.40	12.40	55.689	F
16	D	336.00	84.00	335.98	543.45	524.94	0.00	563.92	457.55	0.596	1.46	1.46	15.785	C
16	E	876.00	219.00	875.37	650.93	209.99	0.00	987.93	937.43	0.887	7.12	7.28	31.186	D

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	605.96	40.40	356.243	F	F
15	B	511.09	34.07	276.537	F	F
15	C	55.30	3.69	18.654	C	B
16	C	125.97	8.40	41.260	E	D
16	D	19.44	1.30	15.175	C	B
16	E	73.63	4.91	22.958	C	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	1816.34	121.09	1078.533	F	F
15	B	1580.75	105.38	902.648	F	F
15	C	72.66	4.84	23.808	C	C
16	C	186.00	12.40	55.663	F	E
16	D	21.56	1.44	15.780	C	B
16	E	98.18	6.55	29.879	D	C

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	3058.37	203.89	1805.271	F	F
15	B	2742.52	182.83	1556.813	F	F
15	C	78.77	5.25	24.671	C	C
16	C	186.00	12.40	55.684	F	E
16	D	21.77	1.45	15.783	C	B
16	E	104.88	6.99	30.797	D	C

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	4299.39	286.63	2532.339	F	F
15	B	3906.07	260.40	2212.761	F	F
15	C	81.24	5.42	24.952	C	C
16	C	186.00	12.40	55.689	F	E
16	D	21.86	1.46	15.785	C	B
16	E	108.07	7.20	31.186	D	C

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	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	Relationship
Option 4, AM	Option 4	AM		Varies by Arm	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	90.83	F
16	16	(untitled)	Mini-roundabout	C,D,E	2181.16	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	**A**	A	The Avenue	
15	**B**	B	Ingrave Road	
15	**C**	C	Brentwood Road	
16	**C**	C	Brentwood Road	
16	**D**	D	Running Waters	
16	**E**	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	**A**	0.00	99999.00		0.00
15	**B**	0.00	99999.00		0.00
15	**C**	0.00	99999.00		0.00
16	**C**	0.00	99999.00		0.00
16	**D**	0.00	99999.00		0.00
16	**E**	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	**A**	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	**B**	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	**C**	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	**C**	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	**D**	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	**E**	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	316.00	100.000
15	B	FLAT	✓	769.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	772.00	100.000
16	E	FLAT	✓	1403.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	28.000	288.000
	B	125.000	0.000	644.000
	C	937.000	696.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.16	0.00	0.84
	C	0.57	0.43	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	230.000	701.000
	D	470.000	0.000	302.000
	E	1165.000	238.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.25	0.75
	D	0.61	0.00	0.39
	E	0.83	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	0.97	107.96	9.10	F	316.00	316.00	227.64	43.22	3.79	235.28	44.67
15	B	1.03	123.75	27.11	F	769.00	769.00	678.74	52.96	11.31	708.38	55.27
15	C	0.98	54.14	12.40	F	837.57	837.57	684.33	49.02	11.41	689.50	49.39
16	C	0.96	52.43	12.40	F	901.00	901.00	662.91	44.14	11.05	667.71	44.46
16	D	2.05	3245.12	388.96	F	772.00	772.00	11565.81	898.90	192.76	23568.47	1831.75
16	E	1.96	2962.78	675.16	F	1403.00	1403.00	20027.54	856.49	333.79	39082.36	1671.38

Main Results for each time segment

Main results: (08:00-08:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	316.00	79.00	312.73	595.64	351.10	0.00	694.91	467.84	0.455	0.00	0.82	9.342	A
15	B	769.00	192.25	756.48	378.81	285.02	0.00	998.22	603.55	0.770	0.00	3.13	14.240	B
15	C	873.38	218.34	823.78	918.53	122.97	0.00	890.21	905.95	0.981	0.00	12.40	40.486	E
16	C	918.53	229.63	875.04	873.38	128.89	0.00	955.51	953.38	0.961	0.00	10.87	34.915	D
16	D	772.00	193.00	398.29	345.06	658.86	0.00	402.55	395.71	1.918	0.00	93.43	445.110	F
16	E	1403.00	350.75	759.79	814.67	242.48	0.00	764.51	779.21	1.835	0.00	160.80	397.689	F

Main results: (08:15-08:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	316.00	79.00	308.93	594.79	351.42	0.00	424.22	467.94	0.745	0.82	2.59	29.610	D
15	B	769.00	192.25	748.60	378.80	281.56	0.00	828.54	603.44	0.928	3.13	8.23	37.509	E
15	C	824.53	206.13	824.53	908.47	121.68	0.00	891.02	905.96	0.925	12.40	12.40	54.140	F
16	C	908.47	227.12	902.37	824.53	121.56	0.00	960.26	953.38	0.946	10.87	12.40	52.428	F
16	D	772.00	193.00	376.98	344.48	679.44	0.00	377.02	395.72	2.048	93.43	192.18	1376.200	F
16	E	1403.00	350.75	716.58	826.91	229.51	0.00	716.60	779.22	1.958	160.80	332.41	1244.822	F

Main results: (08:30-08:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	316.00	79.00	303.32	592.88	352.14	0.00	347.58	467.93	0.909	2.59	5.76	66.426	F
15	B	769.00	192.25	730.88	379.02	276.45	0.00	756.67	603.45	1.016	8.23	17.76	78.596	F
15	C	826.22	206.55	826.22	888.52	118.80	0.00	892.85	905.96	0.925	12.40	12.40	54.029	F
16	C	888.52	222.13	888.52	826.22	121.68	0.00	960.18	953.38	0.925	12.40	12.40	50.241	F
16	D	772.00	193.00	378.76	341.19	669.01	0.00	378.77	395.72	2.038	192.18	290.49	2307.459	F
16	E	1403.00	350.75	717.31	817.18	230.59	0.00	717.31	779.22	1.956	332.41	503.83	2103.899	F

Main results: (08:45-09:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	316.00	79.00	302.60	592.96	352.11	0.00	325.34	467.93	0.971	5.76	9.10	107.960	F
15	B	769.00	192.25	731.61	378.92	275.79	0.00	743.66	603.45	1.034	17.76	27.11	123.753	F
15	C	826.15	206.54	826.15	888.48	118.92	0.00	892.77	905.96	0.925	12.40	12.40	54.034	F
16	C	888.48	222.12	888.48	826.15	121.74	0.00	960.13	953.38	0.925	12.40	12.40	50.244	F
16	D	772.00	193.00	378.13	341.24	668.99	0.00	378.14	395.72	2.042	290.49	388.96	3245.125	F
16	E	1403.00	350.75	717.68	816.91	230.21	0.00	717.68	779.22	1.955	503.83	675.16	2962.776	F

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	11.60	0.77	9.342	A	A
15	B	41.46	2.76	14.240	B	B
15	C	126.33	8.42	40.486	E	D
16	C	115.25	7.68	34.915	D	C
16	D	707.75	47.18	445.110	F	F
16	E	1214.13	80.94	397.689	F	F

Queueing Delay results: (08:15-08:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	33.32	2.22	29.610	D	C
15	B	97.57	6.50	37.509	E	D
15	C	186.00	12.40	54.140	F	D
16	C	175.66	11.71	52.428	F	D
16	D	2142.10	142.81	1376.200	F	F
16	E	3699.11	246.61	1244.822	F	F

Queueing Delay results: (08:30-08:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	68.68	4.58	66.426	F	E
15	B	201.23	13.42	78.596	F	E
15	C	186.00	12.40	54.029	F	D
16	C	186.00	12.40	50.241	F	D
16	D	3620.07	241.34	2307.459	F	F
16	E	6271.82	418.12	2103.899	F	F

Queueing Delay results: (08:45-09:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	114.03	7.60	107.960	F	F
15	B	338.47	22.56	123.753	F	F
15	C	186.00	12.40	54.034	F	D
16	C	186.00	12.40	50.244	F	D
16	D	5095.89	339.73	3245.125	F	F
16	E	8842.47	589.50	2962.776	F	F

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	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	Relationship
Option 4, PM	Option 4	PM		Varies by Arm	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Junction	Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
15	15	(untitled)	Mini-roundabout	A,B,C	2050.12	F
16	16	(untitled)	Mini-roundabout	C,D,E	44.45	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Arm	Name	Description
15	A	A	The Avenue	
15	B	B	Ingrave Road	
15	C	C	Brentwood Road	
16	C	C	Brentwood Road	
16	D	D	Running Waters	
16	E	E	Brentwood Road E	

Capacity Options

Junction	Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
15	A	0.00	99999.00		0.00
15	B	0.00	99999.00		0.00
15	C	0.00	99999.00		0.00
16	C	0.00	99999.00		0.00
16	D	0.00	99999.00		0.00
16	E	0.00	99999.00		0.00

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
15	A	3.30	3.30	6.00	11.33	20.00	11.00	0.00	
15	B	3.30	3.30	6.70	17.91	20.00	17.00	0.00	
15	C	4.40	4.40	6.20	10.30	17.50	8.00	0.00	
16	C	4.60	4.60	8.10	5.68	18.24	10.30	0.00	
16	D	3.50	3.50	6.10	4.88	18.31	9.30	0.00	
16	E	3.10	3.10	7.10	18.71	17.20	14.50	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
15	A		(calculated)	(calculated)	0.602	906.272
15	B		(calculated)	(calculated)	0.754	1212.983
15	C		(calculated)	(calculated)	0.633	968.067
16	C		(calculated)	(calculated)	0.647	1038.951
16	D		(calculated)	(calculated)	0.580	868.276
16	E		(calculated)	(calculated)	0.665	1127.494

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

Junction	Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
15	A	FLAT	✓	862.00	100.000
15	B	FLAT	✓	794.00	100.000
15	C	Linked Arm		N/A	
16	C	Linked Arm		N/A	
16	D	FLAT	✓	336.00	100.000
16	E	FLAT	✓	915.00	100.000

Linked Arm Data

Junction	Arm	From Junction ID	From Arm ID	Link Type	Flow Source	Uniform Flow (PCU/hr)	Flow Multiplier (%)	Internal Storage Space (PCU)
15	C	16	C	Queue limited	Normal	0.00	100.00	12.40
16	C	15	C	Queue limited	Normal	0.00	100.00	12.40

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.000	38.000	824.000
	B	21.000	0.000	773.000
	C	283.000	568.000	0.000

Turning Proportions (PCU) - Junction 15 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.03	0.00	0.97
	C	0.33	0.67	0.00

Turning Counts / Proportions (PCU/hr) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.000	487.000	1107.000
	D	209.000	0.000	127.000
	E	648.000	267.000	0.000

Turning Proportions (PCU) - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.00	0.31	0.69
	D	0.62	0.00	0.38
	E	0.71	0.29	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 15 (for whole period)

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

Heavy Vehicle Percentages - Junction 15 (for whole period)

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

Average PCU Per Vehicle - Junction 16 (for whole period)

		To		
		C	D	E
From	C	1.000	1.000	1.000
	D	1.000	1.000	1.000
	E	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 16 (for whole period)

		To		
		C	D	E
From	C	0.0	0.0	0.0
	D	0.0	0.0	0.0
	E	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
15	A	2.07	3321.08	438.34	F	862.00	862.00	12984.53	903.80	216.41	26842.85	1868.41
15	B	1.91	2826.05	372.09	F	794.00	794.00	11021.95	832.89	183.70	21027.13	1588.95
15	C	0.89	32.68	7.39	D	848.43	848.43	369.93	26.16	6.17	371.64	26.28
16	C	0.98	55.68	12.40	F	815.73	815.73	684.00	50.31	11.40	689.32	50.70
16	D	0.62	17.18	1.59	C	336.00	336.00	91.77	16.39	1.53	91.90	16.41
16	E	0.93	44.45	10.70	E	915.00	915.00	533.78	35.00	8.90	537.25	35.23

Main Results for each time segment

Main results: (17:00-17:15)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	862.00	215.50	446.65	280.65	539.86	0.00	450.95	433.39	1.912	0.00	103.84	443.471	F
15	B	794.00	198.50	441.46	559.55	426.96	0.00	446.47	452.96	1.778	0.00	88.13	379.948	F
15	C	830.14	207.54	808.84	856.74	11.68	0.00	960.67	960.48	0.864	0.00	5.33	21.400	C
16	C	856.74	214.19	807.14	830.14	257.52	0.00	872.23	870.63	0.982	0.00	12.40	41.206	E
16	D	336.00	84.00	329.82	504.12	560.54	0.00	543.27	494.20	0.618	0.00	1.55	16.430	C
16	E	915.00	228.75	882.51	685.21	205.16	0.00	991.14	891.00	0.923	0.00	8.12	27.818	D

Main results: (17:15-17:30)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	862.00	215.50	416.07	292.87	565.75	0.00	416.10	427.16	2.072	103.84	215.32	1392.048	F
15	B	794.00	198.50	415.75	584.09	397.73	0.00	415.80	448.15	1.910	88.13	182.70	1185.248	F
15	C	852.80	213.20	847.62	802.48	11.00	0.00	961.11	960.56	0.887	5.33	6.62	29.714	D
16	C	802.48	200.62	802.48	852.80	265.30	0.00	867.20	859.14	0.925	12.40	12.40	55.623	F
16	D	336.00	84.00	335.89	510.47	557.31	0.00	545.15	424.97	0.616	1.55	1.57	17.176	C
16	E	915.00	228.75	909.17	684.27	208.93	0.00	988.63	951.80	0.926	8.12	9.58	40.334	E

Main results: (17:30-17:45)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	862.00	215.50	415.98	294.65	569.33	0.00	415.99	427.11	2.072	215.32	326.83	2356.333	F
15	B	794.00	198.50	415.29	587.67	397.64	0.00	415.31	448.20	1.912	182.70	277.37	2005.051	F
15	C	854.99	213.75	853.00	801.95	10.98	0.00	961.11	960.56	0.890	6.62	7.12	31.825	D
16	C	801.95	200.49	801.95	854.99	266.18	0.00	866.63	859.14	0.925	12.40	12.40	55.665	F
16	D	336.00	84.00	335.96	511.19	556.94	0.00	545.36	424.97	0.616	1.57	1.58	17.176	C
16	E	915.00	228.75	912.20	683.92	208.98	0.00	988.60	951.80	0.926	9.58	10.28	43.075	E

Main results: (17:45-18:00)

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
15	A	862.00	215.50	415.94	295.22	570.49	0.00	415.94	427.09	2.072	326.83	438.34	3321.083	F
15	B	794.00	198.50	415.13	588.83	397.60	0.00	415.14	448.21	1.913	277.37	372.09	2826.048	F
15	C	855.80	213.95	854.73	801.76	10.98	0.00	961.12	960.56	0.890	7.12	7.39	32.681	D
16	C	801.76	200.44	801.76	855.80	266.51	0.00	866.41	859.14	0.925	12.40	12.40	55.678	F
16	D	336.00	84.00	335.98	511.46	556.80	0.00	545.44	424.97	0.616	1.58	1.59	17.174	C
16	E	915.00	228.75	913.32	683.79	208.99	0.00	988.59	951.80	0.926	10.28	10.70	44.451	E

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	785.95	52.40	443.471	F	F
15	B	669.17	44.61	379.948	F	F
15	C	65.34	4.36	21.400	C	C
16	C	126.00	8.40	41.206	E	D
16	D	20.93	1.40	16.430	C	B
16	E	92.26	6.15	27.818	D	C

Queueing Delay results: (17:15-17:30)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	2393.72	159.58	1392.048	F	F
15	B	2031.26	135.42	1185.248	F	F
15	C	91.99	6.13	29.714	D	C
16	C	186.00	12.40	55.623	F	E
16	D	23.41	1.56	17.176	C	B
16	E	134.41	8.96	40.334	E	D

Queueing Delay results: (17:30-17:45)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	4066.11	271.07	2356.333	F	F
15	B	3450.54	230.04	2005.051	F	F
15	C	103.60	6.91	31.825	D	C
16	C	186.00	12.40	55.665	F	E
16	D	23.66	1.58	17.176	C	B
16	E	149.49	9.97	43.075	E	D

Queueing Delay results: (17:45-18:00)

Junction	Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
15	A	5738.75	382.58	3321.083	F	F
15	B	4870.99	324.73	2826.048	F	F
15	C	109.01	7.27	32.681	D	C
16	C	186.00	12.40	55.678	F	E
16	D	23.76	1.58	17.174	C	B
16	E	157.62	10.51	44.451	E	D

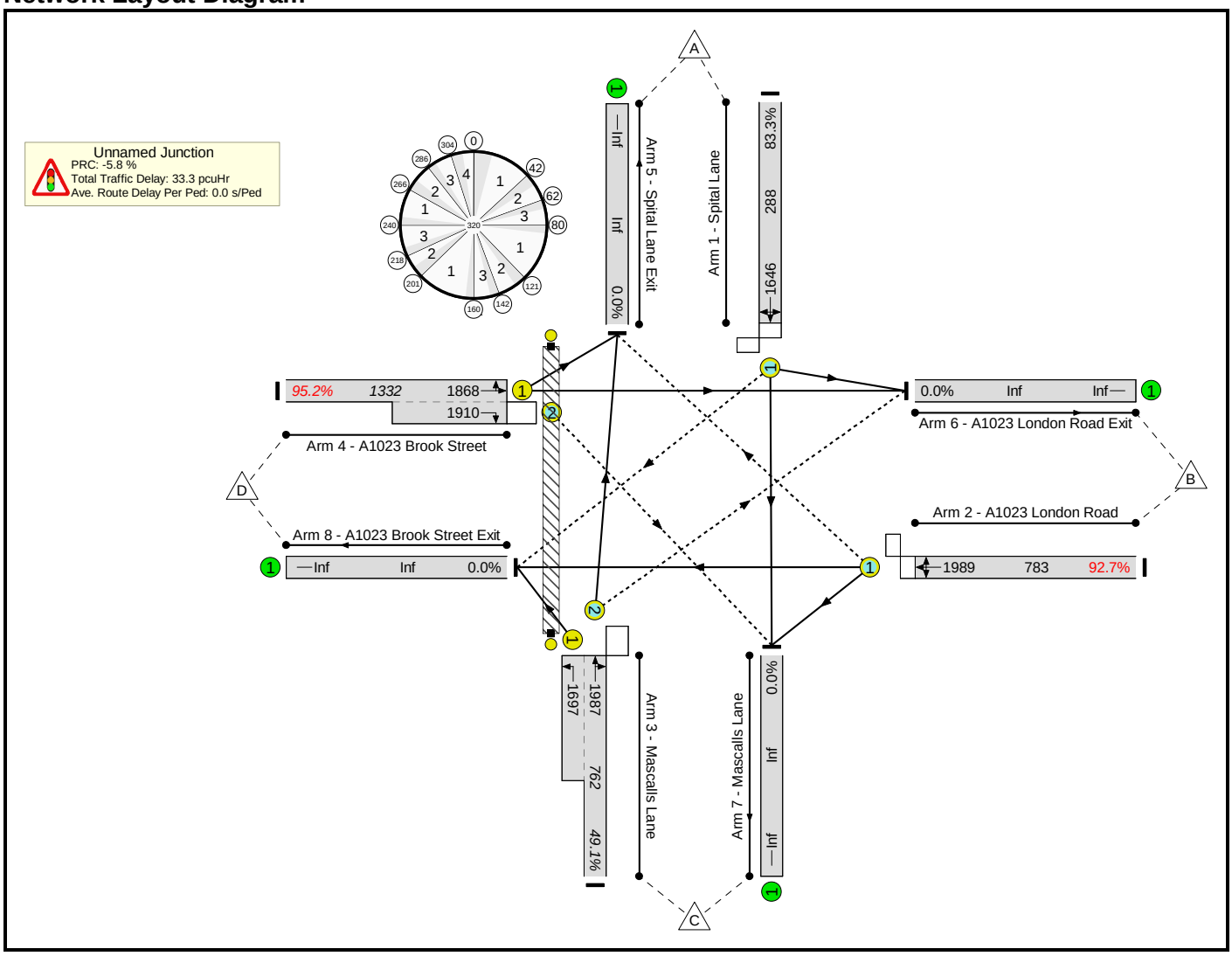
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	17.A1023 Brook Street - Mascalls Lane Rev B.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 3: 'AM Baseline' (FG3: 'AM Baseline', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

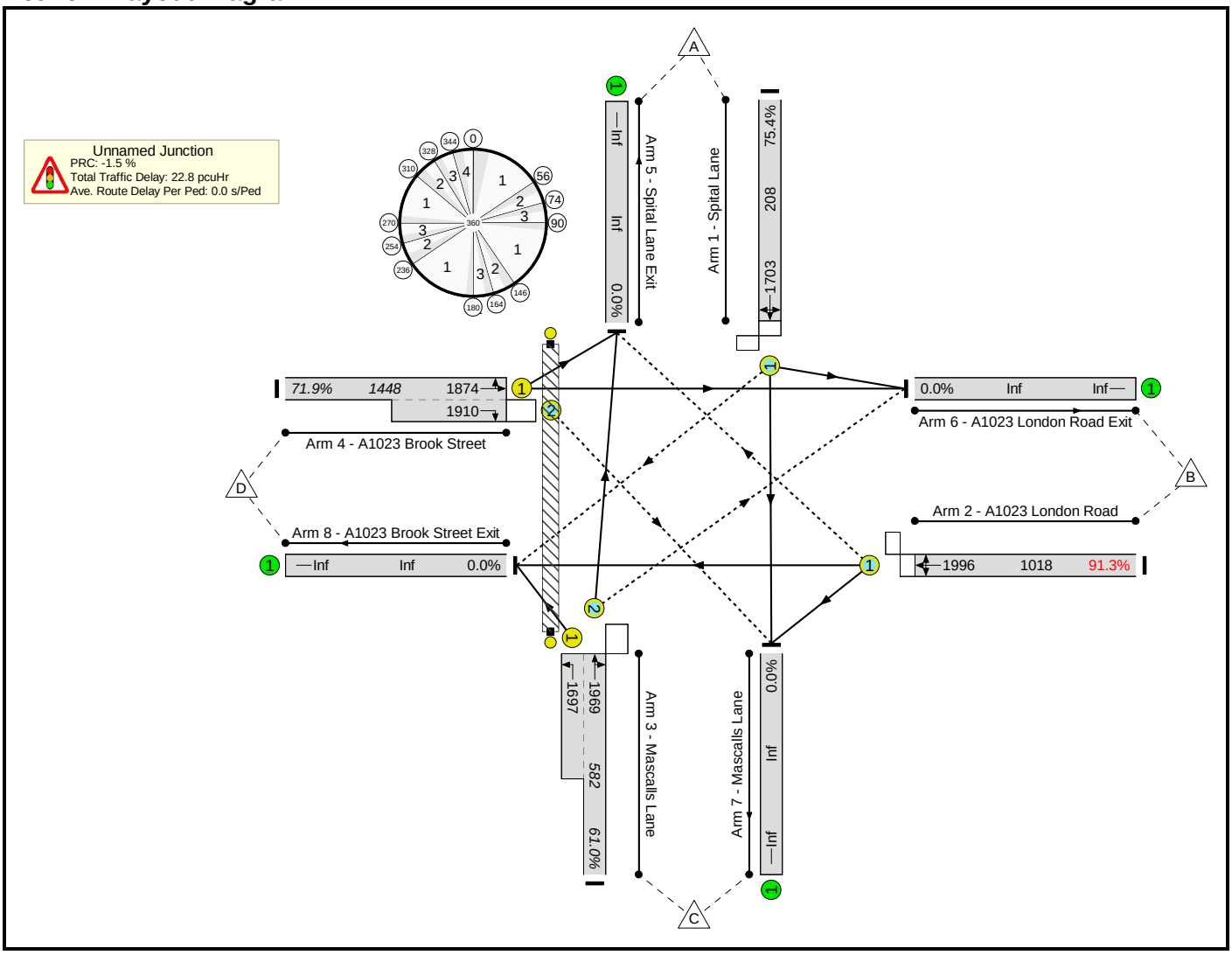
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.2%**	**125**	**284**	**17**	**33.3**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.2%**	**125**	**284**	**17**	**33.3**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	52	-	240	1646	288	83.3%	52	0	4	4.6	68.9	8.7
2/1	A1023 London Road Right Left Ahead	O	B		4	122	-	726	1989	783	92.7%	8	0	4	11.4	56.6	25.7
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	52:122	70	374	1987:1697	762	49.1%	27	0	0	2.6	25.4	7.3
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	197	197	1268	1868:1910	1332	95.2%	37	284	9	14.7	41.7	41.1
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -5.8 Total Delay for Signalled Lanes (pcuHr): 33.32 Cycle Time (s): 320
PRC Over All Lanes (%): -5.8 Total Delay Over All Lanes(pcuHr): 33.32

Basic Results Summary

Scenario 4: 'PM Baseline' (FG4: 'PM Baseline', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

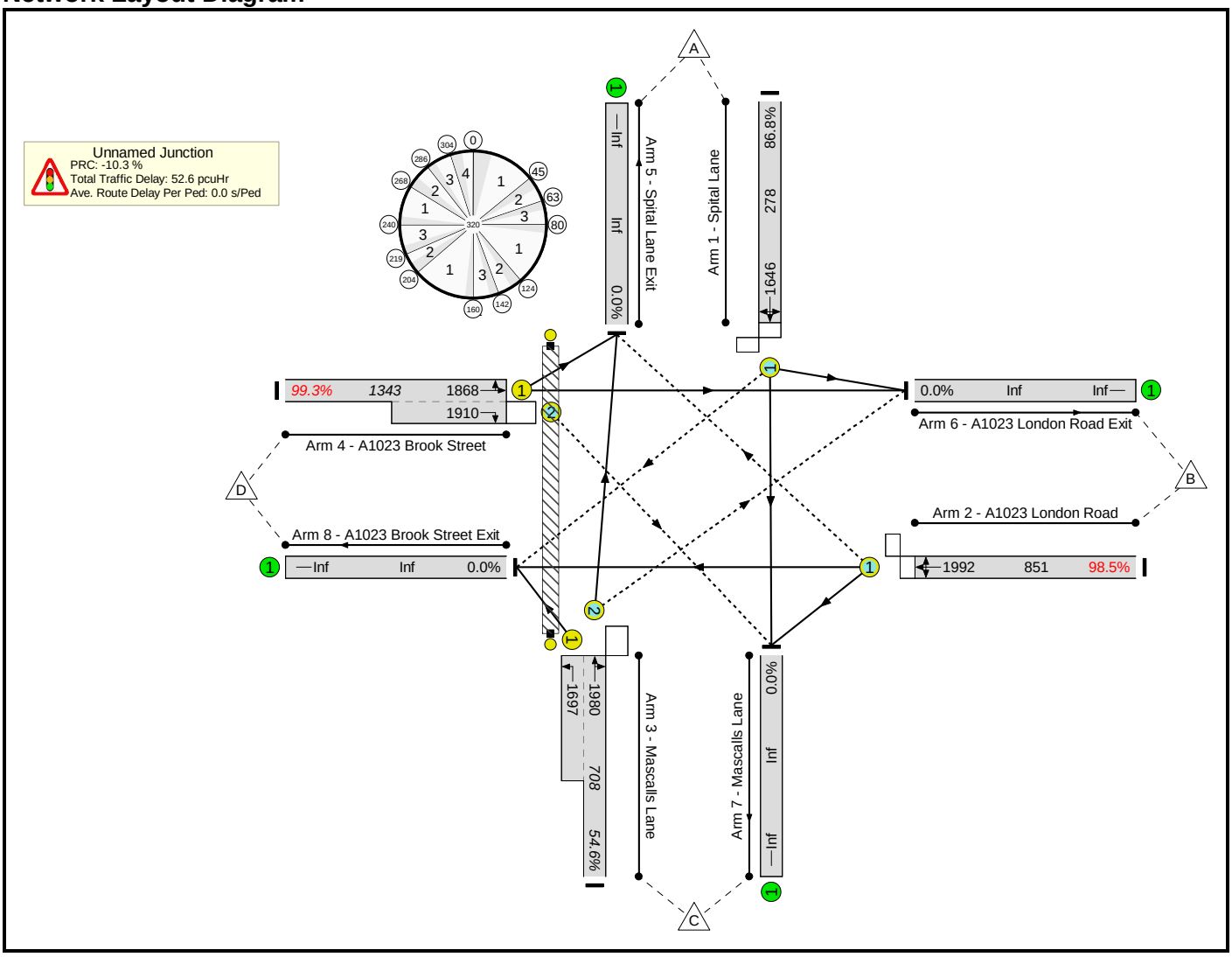
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**91.3%**	**137**	**202**	**7**	**22.8**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**91.3%**	**137**	**202**	**7**	**22.8**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	40	-	157	1703	208	75.4%	54	0	1	3.2	72.6	6.0
2/1	A1023 London Road Right Left Ahead	O	B		4	180	-	930	1996	1018	91.3%	10	0	0	10.9	42.1	32.1
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	40:104	64	355	1969:1697	582	61.0%	28	0	0	3.6	36.9	8.9
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	249	249	1041	1874:1910	1448	71.9%	46	202	6	5.1	17.6	23.3
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 22.78 Cycle Time (s): 360
PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 22.78

Basic Results Summary

Scenario 5: 'AM Option 1' (FG5: 'AM Option 1', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

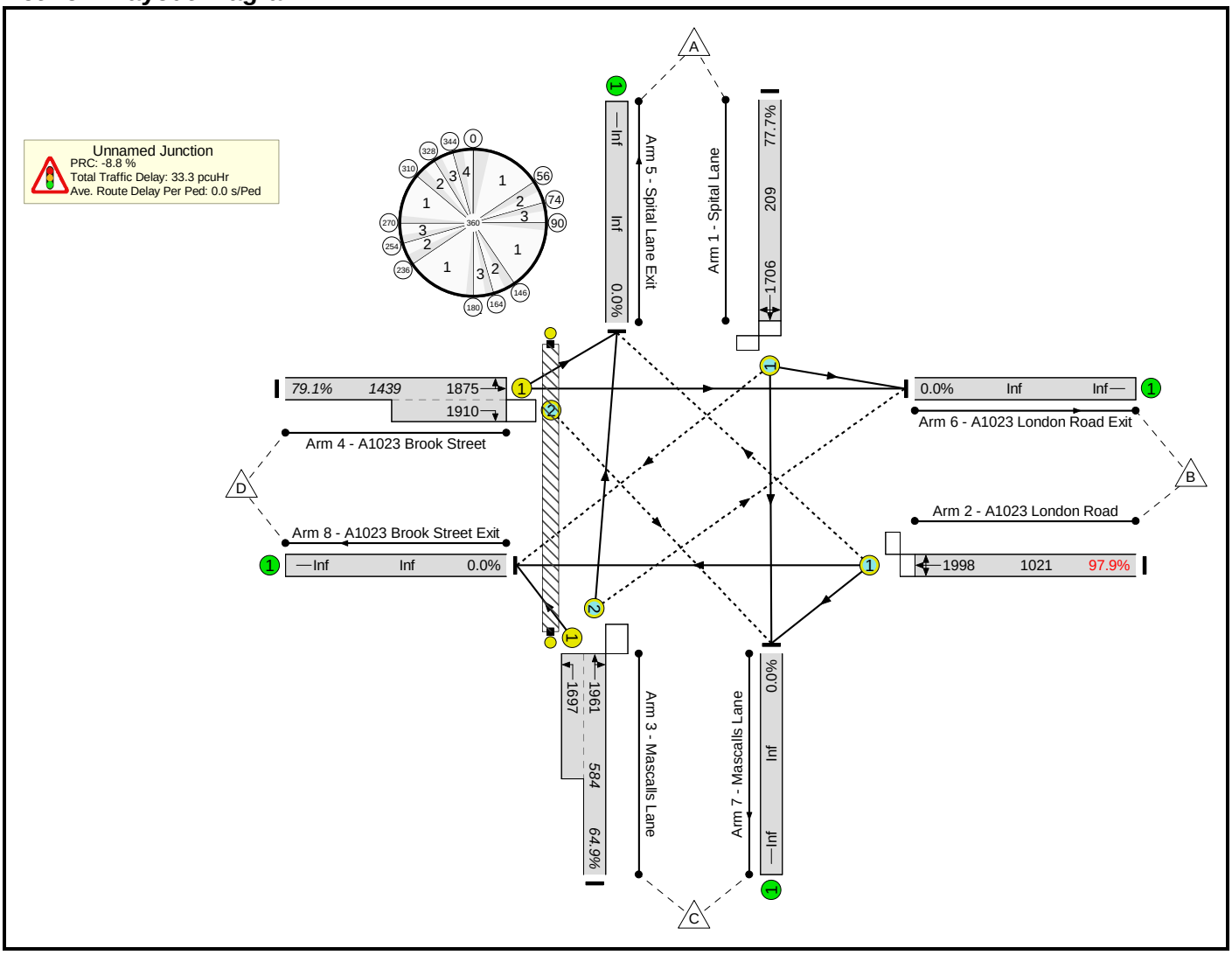
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.3%**	**106**	**312**	**29**	**52.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.3%**	**106**	**312**	**29**	**52.6**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	50	-	241	1646	278	86.8%	53	0	4	5.4	80.7	9.3
2/1	A1023 London Road Right Left Ahead	O	B		4	133	-	838	1992	851	98.5%	7	0	5	19.6	84.2	36.0
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	50:111	61	387	1980:1697	708	54.6%	30	0	2	3.1	28.5	8.0
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	199	199	1334	1868:1910	1343	99.3%	17	312	18	24.5	66.2	51.6
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -10.3 Total Delay for Signalled Lanes (pcuHr): 52.58 Cycle Time (s): 320
PRC Over All Lanes (%): -10.3 Total Delay Over All Lanes(pcuHr): 52.58

Basic Results Summary

Scenario 6: 'PM Option 1' (FG6: 'PM Option 1', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

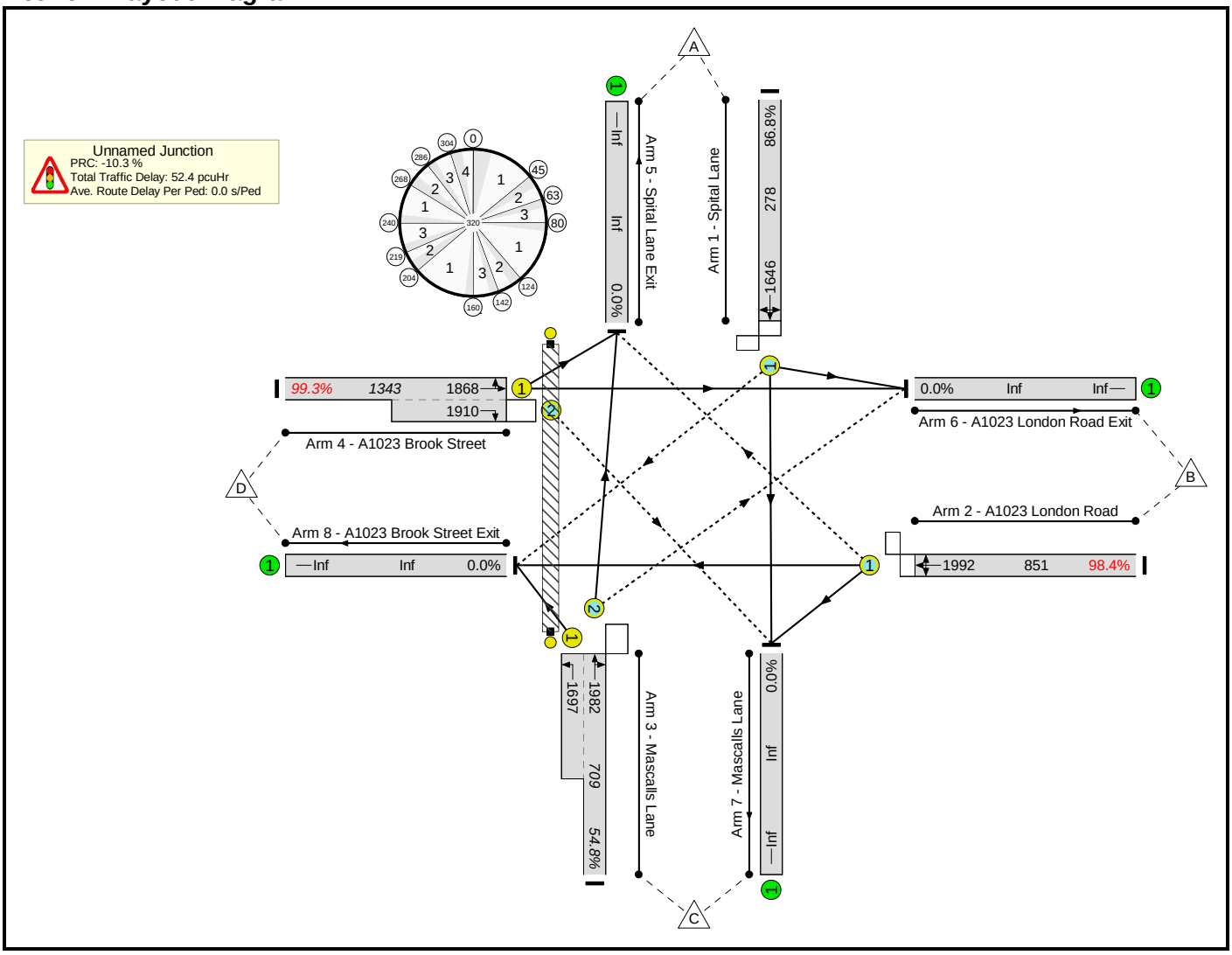
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**116**	**236**	**9**	**33.3**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**116**	**236**	**9**	**33.3**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	40	-	162	1706	209	77.7%	57	0	2	3.4	75.6	6.3
2/1	A1023 London Road Right Left Ahead	O	B		4	180	-	1000	1998	1021	97.9%	9	0	1	19.5	70.3	42.0
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	40:104	64	379	1961:1697	584	64.9%	33	0	0	4.0	38.2	9.6
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	249	249	1138	1875:1910	1439	79.1%	17	236	6	6.3	20.1	30.2
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -8.8 Total Delay for Signalled Lanes (pcuHr): 33.30 Cycle Time (s): 360
PRC Over All Lanes (%): -8.8 Total Delay Over All Lanes(pcuHr): 33.30

Basic Results Summary

Scenario 7: 'AM Option 2' (FG7: 'AM Option 2', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

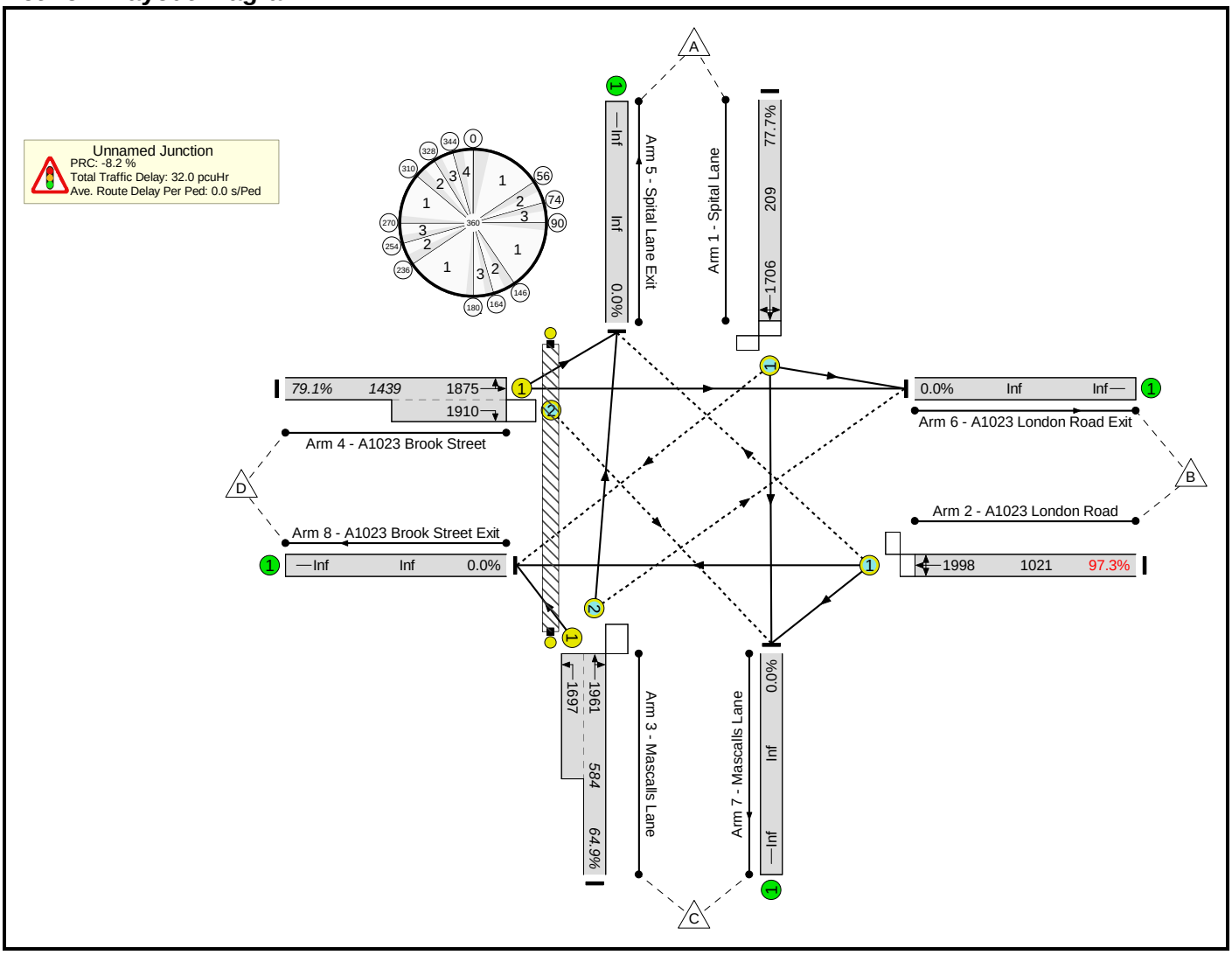
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.3%**	**107**	**312**	**29**	**52.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.3%**	**107**	**312**	**29**	**52.4**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	50	-	241	1646	278	86.8%	53	0	4	5.4	80.7	9.3
2/1	A1023 London Road Right Left Ahead	O	B		4	133	-	837	1992	851	98.4%	7	0	5	19.4	83.4	35.8
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	50:111	61	389	1982:1697	709	54.8%	30	0	2	3.1	28.5	8.0
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	199	199	1334	1868:1910	1343	99.3%	17	312	18	24.5	66.1	51.6
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -10.3 Total Delay for Signalled Lanes (pcuHr): 52.39 Cycle Time (s): 320
PRC Over All Lanes (%): -10.3 Total Delay Over All Lanes(pcuHr): 52.39

Basic Results Summary

Scenario 8: 'PM Option 2' (FG8: 'PM Option 2', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

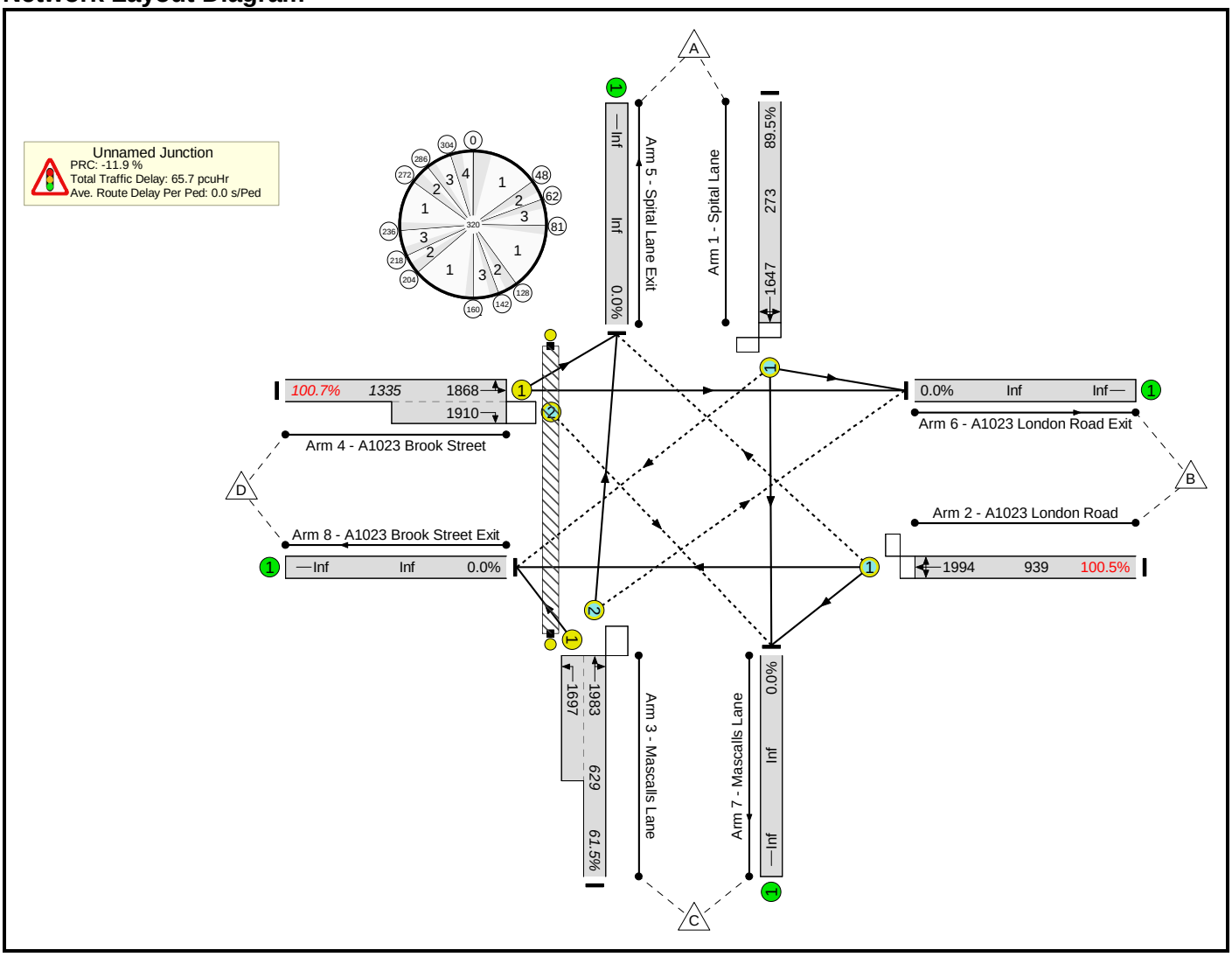
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.3%**	**118**	**234**	**9**	**32.0**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.3%**	**118**	**234**	**9**	**32.0**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	40	-	162	1706	209	77.7%	57	0	2	3.4	75.6	6.3
2/1	A1023 London Road Right Left Ahead	O	B		4	180	-	994	1998	1021	97.3%	9	0	1	18.2	66.1	40.6
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	40:104	64	379	1961:1697	584	64.9%	33	0	0	4.0	38.2	9.6
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	249	249	1138	1875:1910	1439	79.1%	20	234	6	6.3	20.0	30.2
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -8.2 Total Delay for Signalled Lanes (pcuHr): 32.00 Cycle Time (s): 360
PRC Over All Lanes (%): -8.2 Total Delay Over All Lanes(pcuHr): 32.00

Basic Results Summary

Scenario 9: 'AM Option 3' (FG9: 'AM Option 3', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

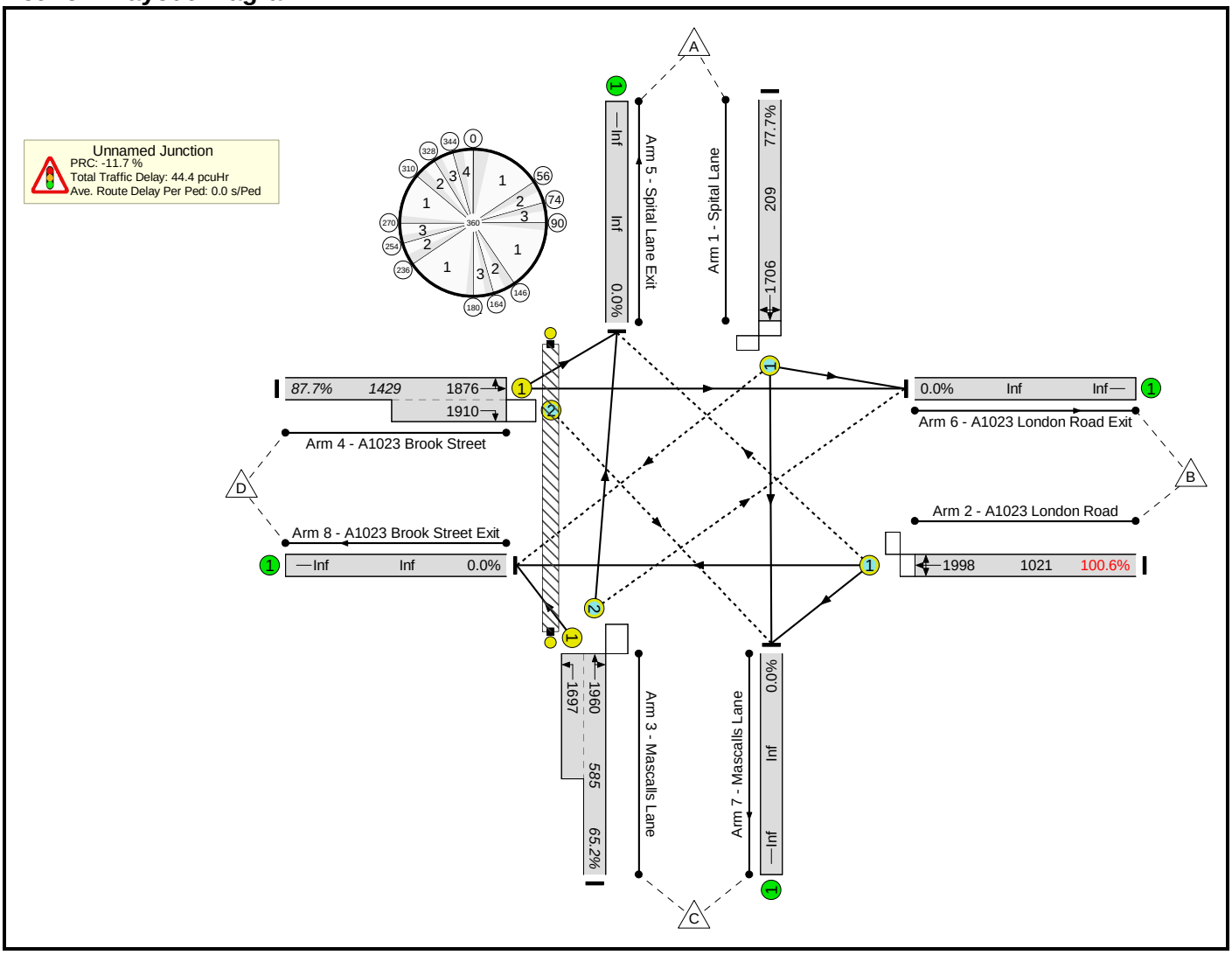
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**100.7%**	**105**	**281**	**56**	**65.7**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**100.7%**	**105**	**281**	**56**	**65.7**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	49	-	244	1647	273	89.5%	56	0	3	5.8	84.9	10.0
2/1	A1023 London Road Right Left Ahead	O	B		4	147	-	944	1994	939	100.5%	7	0	5	24.9	95.0	43.4
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	49:97	48	387	1983:1697	629	61.5%	30	0	0	3.5	32.4	8.6
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	200	200	1345	1868:1910	1335	100.7%	12	281	48	31.5	84.4	56.7
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -11.9 Total Delay for Signalled Lanes (pcuHr): 65.68 Cycle Time (s): 320
PRC Over All Lanes (%): -11.9 Total Delay Over All Lanes(pcuHr): 65.68

Basic Results Summary

Scenario 10: 'PM Option 3' (FG10: 'PM Option 3', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

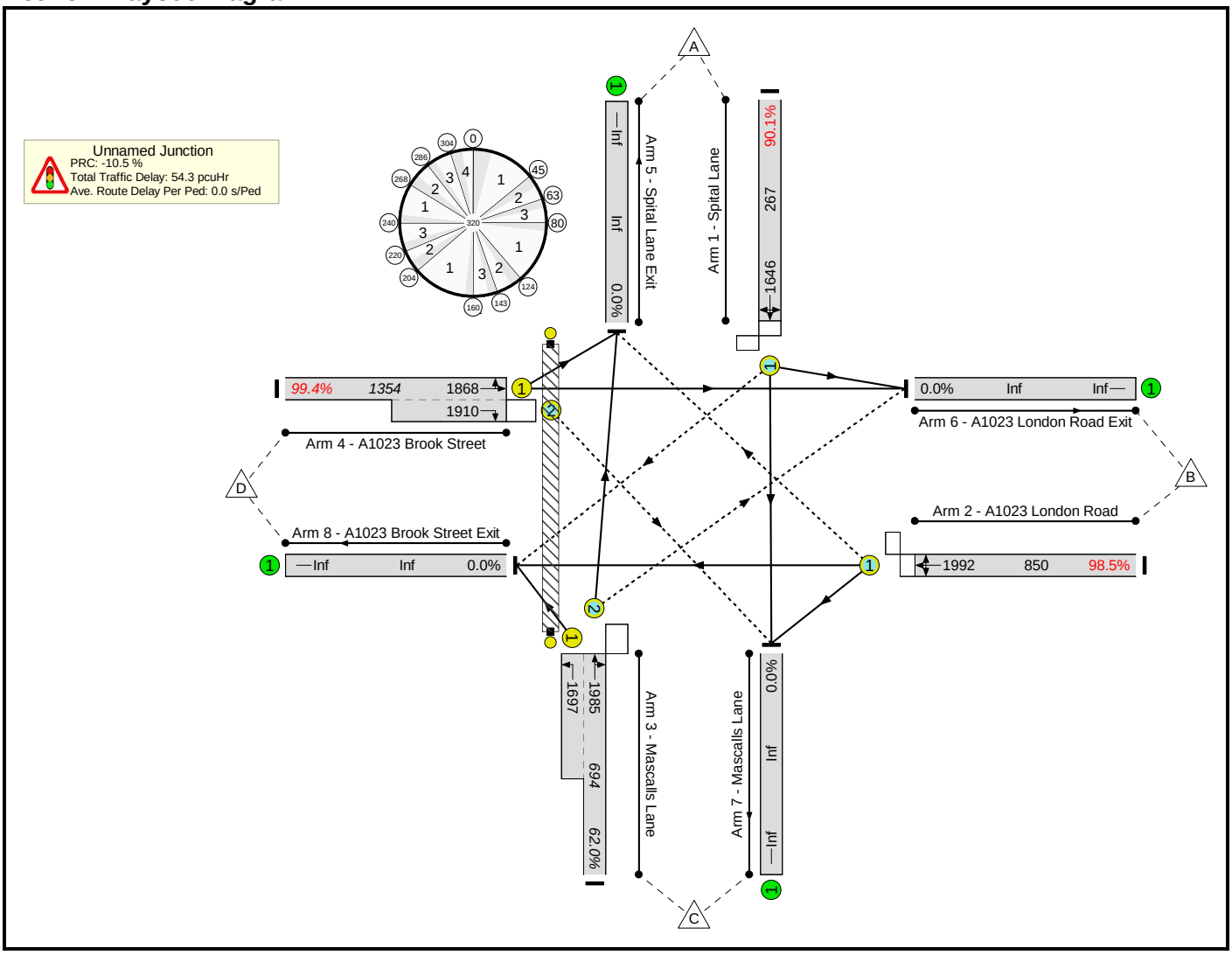
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**100.6%**	**110**	**241**	**11**	**44.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**100.6%**	**110**	**241**	**11**	**44.4**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	40	-	162	1706	209	77.7%	58	0	2	3.4	75.7	6.3
2/1	A1023 London Road Right Left Ahead	O			4	180	-	1027	1998	1021	100.6%	6	0	2	28.0	98.2	51.0
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	40:104	64	381	1960:1697	585	65.2%	34	0	0	4.0	38.2	9.6
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	249	249	1253	1876:1910	1429	87.7%	12	241	7	8.9	25.6	40.4
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -11.7 Total Delay for Signalled Lanes (pcuHr): 44.37 Cycle Time (s): 360
PRC Over All Lanes (%): -11.7 Total Delay Over All Lanes(pcuHr): 44.37

Basic Results Summary

Scenario 11: 'AM Option 4' (FG11: 'AM Option 4', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

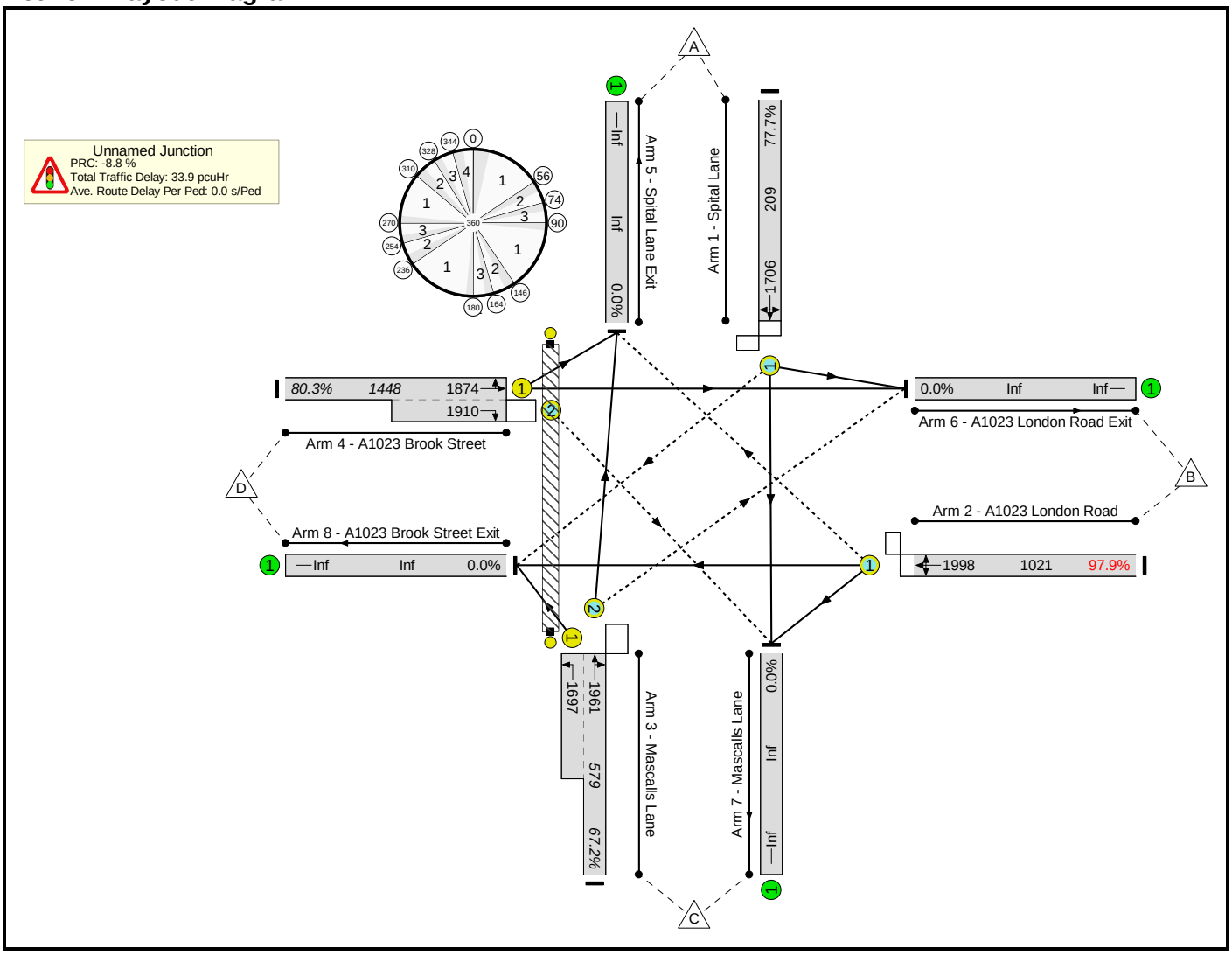
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.4%**	**102**	**323**	**22**	**54.3**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.4%**	**102**	**323**	**22**	**54.3**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	48	-	241	1646	267	90.1%	54	0	4	6.3	94.0	10.0
2/1	A1023 London Road Right Left Ahead	O	B		4	133	-	837	1992	850	98.5%	6	0	6	19.4	83.5	35.8
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	48:111	63	430	1985:1697	694	62.0%	28	0	1	3.6	30.1	9.7
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	201	201	1346	1868:1910	1354	99.4%	14	323	11	25.0	66.9	52.2
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -10.5 Total Delay for Signalled Lanes (pcuHr): 54.32 Cycle Time (s): 320
PRC Over All Lanes (%): -10.5 Total Delay Over All Lanes(pcuHr): 54.32

Basic Results Summary

Scenario 12: 'PM Option 4' (FG12: 'PM Option 4', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**112**	**259**	**10**	**33.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.9%**	**112**	**259**	**10**	**33.9**	**-**	**-**
1/1	Spital Lane Left Ahead Right	O	E		4	40	-	162	1706	209	77.7%	57	0	2	3.4	75.7	6.3
2/1	A1023 London Road Right Left Ahead	O	B		4	180	-	1000	1998	1021	97.9%	6	0	1	19.5	70.2	42.0
3/2+3/1	Mascalls Lane Ahead Right Left	O+U	D	G	4	40:104	64	389	1961:1697	579	67.2%	32	0	0	4.2	38.9	10.2
4/1+4/2	A1023 Brook Street Left Ahead Right	U+O	C	F	4	249	249	1162	1874:1910	1448	80.3%	17	259	6	6.8	21.0	31.4
Ped Link: P1	Unnamed Ped Link	-	A		1	8	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -8.8 Total Delay for Signalled Lanes (pcuHr): 33.89 Cycle Time (s): 360
PRC Over All Lanes (%): -8.8 Total Delay Over All Lanes(pcuHr): 33.89

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 19 Warley Street - A127 Eastbound Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 10:20:43

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	148.75	1494.53	1.46	F	3.71	46.22	0.80	E
Stream C-AB	0.86	7.29	0.32	A	1.17	7.01	0.39	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	170.90	1772.19	1.55	F	13.97	152.65	0.97	F
Stream C-AB	0.96	7.23	0.33	A	1.29	7.08	0.41	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	124.58	1277.58	1.39	F	14.41	157.23	0.98	F
Stream C-AB	0.99	7.31	0.34	A	1.31	7.06	0.41	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	168.44	1732.98	1.54	F	14.46	156.85	0.98	F
Stream C-AB	0.96	7.15	0.33	A	1.28	7.01	0.41	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	175.89	1854.01	1.58	F	15.20	164.53	0.98	F
Stream C-AB	1.07	6.91	0.34	A	1.32	7.00	0.41	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 10:20:40

File summary

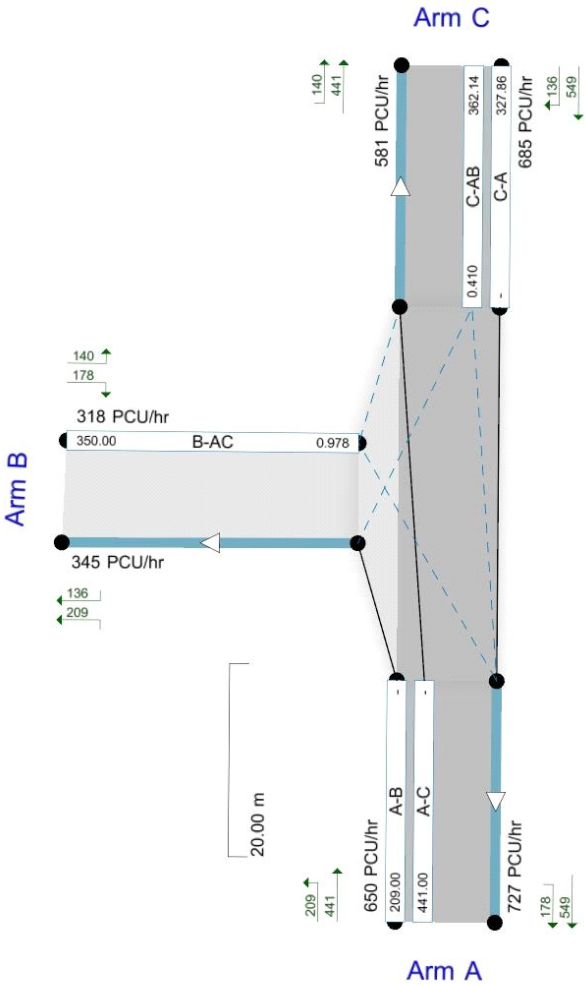
Title	Warley Street - A127 Eastbound
Location	Brentwood
Site Number	19
Date	05/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		1000.67	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	954.00	100.000
B	FLAT	✓	464.00	100.000
C	FLAT	✓	511.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	256.000	698.000
	B	257.000	0.000	207.000
	C	411.000	100.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.55	0.00	0.45
	C	0.80	0.20	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.46	1494.53	148.75	F	464.00	464.00	4515.16	583.86	75.25	6607.79	854.46
C-AB	0.32	7.29	0.86	A	230.68	230.68	51.47	13.39	0.86	51.50	13.40
C-A	-	-	-	-	280.32	280.32	-	-	-	-	-
A-B	-	-	-	-	256.00	256.00	-	-	-	-	-
A-C	-	-	-	-	698.00	698.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	464.00	116.00	309.86	0.00	317.90	1.460	0.00	38.54	239.578	F
C-AB	229.12	57.28	225.75	0.00	726.61	0.315	0.00	0.84	7.184	A
C-A	281.88	70.47	281.88	0.00	-	-	-	-	-	-
A-B	256.00	64.00	256.00	0.00	-	-	-	-	-	-
A-C	698.00	174.50	698.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	464.00	116.00	316.91	0.00	317.22	1.463	38.54	75.31	664.596	F
C-AB	231.18	57.80	231.12	0.00	728.06	0.318	0.84	0.86	7.287	A
C-A	279.82	69.95	279.82	0.00	-	-	-	-	-	-
A-B	256.00	64.00	256.00	0.00	-	-	-	-	-	-
A-C	698.00	174.50	698.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	464.00	116.00	317.09	0.00	317.21	1.463	75.31	112.03	1079.020	F
C-AB	231.20	57.80	231.18	0.00	728.10	0.318	0.86	0.86	7.289	A
C-A	279.80	69.95	279.80	0.00	-	-	-	-	-	-
A-B	256.00	64.00	256.00	0.00	-	-	-	-	-	-
A-C	698.00	174.50	698.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	464.00	116.00	317.14	0.00	317.20	1.463	112.03	148.75	1494.534	F
C-AB	231.21	57.80	231.20	0.00	728.10	0.318	0.86	0.86	7.289	A
C-A	279.79	69.95	279.79	0.00	-	-	-	-	-	-
A-B	256.00	64.00	256.00	0.00	-	-	-	-	-	-
A-C	698.00	174.50	698.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	300.23	20.02	239.578	F	F
C-AB	12.30	0.82	7.184	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	853.94	56.93	664.596	F	F
C-AB	13.05	0.87	7.287	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1405.10	93.67	1079.020	F	F
C-AB	13.06	0.87	7.289	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1955.88	130.39	1494.534	F	F
C-AB	13.06	0.87	7.289	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		25.60	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	635.00	100.000
B	FLAT	✓	301.00	100.000
C	FLAT	✓	640.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	203.000	432.000
	B	154.000	0.000	147.000
	C	503.000	137.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.51	0.00	0.49
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.80	46.22	3.71	E	301.00	301.00	198.55	39.58	3.31	199.65	39.80
C-AB	0.39	7.01	1.17	A	333.99	333.99	69.36	12.46	1.16	69.40	12.47
C-A	-	-	-	-	306.01	306.01	-	-	-	-	-
A-B	-	-	-	-	203.00	203.00	-	-	-	-	-
A-C	-	-	-	-	432.00	432.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	301.00	75.25	288.19	0.00	378.17	0.796	0.00	3.20	36.157	E
C-AB	331.70	82.93	327.17	0.00	850.53	0.390	0.00	1.13	6.872	A
C-A	308.30	77.07	308.30	0.00	-	-	-	-	-	-
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	432.00	108.00	432.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	301.00	75.25	299.74	0.00	377.30	0.798	3.20	3.52	44.844	E
C-AB	334.72	83.68	334.63	0.00	852.43	0.393	1.13	1.16	7.006	A
C-A	305.28	76.32	305.28	0.00	-	-	-	-	-	-
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	432.00	108.00	432.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	301.00	75.25	300.49	0.00	377.29	0.798	3.52	3.64	45.822	E
C-AB	334.76	83.69	334.73	0.00	852.48	0.393	1.16	1.16	7.009	A
C-A	305.24	76.31	305.24	0.00	-	-	-	-	-	-
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	432.00	108.00	432.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	301.00	75.25	300.73	0.00	377.28	0.798	3.64	3.71	46.224	E
C-AB	334.77	83.69	334.76	0.00	852.49	0.393	1.16	1.17	7.007	A
C-A	305.23	76.31	305.23	0.00	-	-	-	-	-	-
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	432.00	108.00	432.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	38.65	2.58	36.157	E	D
C-AB	16.55	1.10	6.872	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	50.84	3.39	44.844	E	D
C-AB	17.59	1.17	7.006	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	53.83	3.59	45.822	E	D
C-AB	17.61	1.17	7.009	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	55.23	3.68	46.224	E	D
C-AB	17.61	1.17	7.007	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		1168.12	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	983.00	100.000
B	FLAT	✓	476.00	100.000
C	FLAT	✓	546.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	265.000	718.000
	B	263.000	0.000	213.000
	C	446.000	100.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.55	0.00	0.45
	C	0.82	0.18	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.55	1772.19	170.90	F	476.00	476.00	5171.25	651.84	86.19	8028.08	1011.94
C-AB	0.33	7.23	0.96	A	247.69	247.69	57.07	13.82	0.95	57.11	13.83
C-A	-	-	-	-	298.31	298.31	-	-	-	-	-
A-B	-	-	-	-	265.00	265.00	-	-	-	-	-
A-C	-	-	-	-	718.00	718.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	300.61	0.00	307.47	1.548	0.00	43.85	277.599	F
C-AB	245.85	61.46	242.11	0.00	748.21	0.329	0.00	0.93	7.111	A
C-A	300.15	75.04	300.15	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	718.00	179.50	718.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	306.51	0.00	306.71	1.552	43.85	86.22	781.524	F
C-AB	248.28	62.07	248.20	0.00	749.91	0.331	0.93	0.95	7.224	A
C-A	297.72	74.43	297.72	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	718.00	179.50	718.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	306.63	0.00	306.70	1.552	86.22	128.56	1276.310	F
C-AB	248.31	62.08	248.28	0.00	749.95	0.331	0.95	0.96	7.229	A
C-A	297.69	74.42	297.69	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	718.00	179.50	718.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	306.66	0.00	306.70	1.552	128.56	170.90	1772.187	F
C-AB	248.32	62.08	248.31	0.00	749.96	0.331	0.96	0.96	7.230	A
C-A	297.68	74.42	297.68	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	718.00	179.50	718.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	338.81	22.59	277.599	F	F
C-AB	13.60	0.91	7.111	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	975.59	65.04	781.524	F	F
C-AB	14.48	0.97	7.224	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1610.89	107.39	1276.310	F	F
C-AB	14.49	0.97	7.229	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2245.96	149.73	1772.187	F	F
C-AB	14.50	0.97	7.230	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		78.81	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	653.00	100.000
B	FLAT	✓	348.00	100.000
C	FLAT	✓	674.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	209.000	444.000
	B	195.000	0.000	153.000
	C	535.000	139.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.56	0.00	0.44
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.97	152.65	13.97	F	348.00	348.00	586.50	101.12	9.78	602.87	103.94
C-AB	0.41	7.08	1.29	A	358.28	358.28	76.89	12.88	1.28	76.95	12.89
C-A	-	-	-	-	315.72	315.72	-	-	-	-	-
A-B	-	-	-	-	209.00	209.00	-	-	-	-	-
A-C	-	-	-	-	444.00	444.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	317.38	0.00	358.84	0.970	0.00	7.66	65.432	F
C-AB	355.61	88.90	350.59	0.00	870.41	0.409	0.00	1.25	6.921	A
C-A	318.39	79.60	318.39	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	444.00	111.00	444.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	336.64	0.00	357.85	0.972	7.66	10.49	114.297	F
C-AB	359.13	89.78	359.02	0.00	872.60	0.412	1.25	1.28	7.072	A
C-A	314.87	78.72	314.87	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	444.00	111.00	444.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	340.16	0.00	357.83	0.973	10.49	12.45	136.456	F
C-AB	359.17	89.79	359.14	0.00	872.66	0.412	1.28	1.29	7.072	A
C-A	314.83	78.71	314.83	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	444.00	111.00	444.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	341.93	0.00	357.82	0.973	12.45	13.97	152.655	F
C-AB	359.20	89.80	359.18	0.00	872.67	0.412	1.29	1.29	7.076	A
C-A	314.80	78.70	314.80	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	444.00	111.00	444.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	77.30	5.15	65.432	F	E
C-AB	18.28	1.22	6.921	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	137.77	9.18	114.297	F	F
C-AB	19.52	1.30	7.072	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	172.83	11.52	136.456	F	F
C-AB	19.54	1.30	7.072	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	198.60	13.24	152.655	F	F
C-AB	19.55	1.30	7.076	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		811.33	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	995.00	100.000
B	FLAT	✓	434.00	100.000
C	FLAT	✓	548.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	265.000	730.000
	B	221.000	0.000	213.000
	C	447.000	101.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.51	0.00	0.49
	C	0.82	0.18	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.39	1277.58	124.58	F	434.00	434.00	3797.73	525.03	63.30	5291.37	731.53
C-AB	0.34	7.31	0.99	A	251.68	251.68	58.68	13.99	0.98	58.72	14.00
C-A	-	-	-	-	296.32	296.32	-	-	-	-	-
A-B	-	-	-	-	265.00	265.00	-	-	-	-	-
A-C	-	-	-	-	730.00	730.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	434.00	108.50	303.22	0.00	312.49	1.389	0.00	32.70	211.197	F
C-AB	249.77	62.44	245.94	0.00	746.87	0.334	0.00	0.96	7.184	A
C-A	298.23	74.56	298.23	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	730.00	182.50	730.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	434.00	108.50	311.28	0.00	311.74	1.392	32.70	63.38	574.662	F
C-AB	252.29	63.07	252.21	0.00	748.62	0.337	0.96	0.98	7.306	A
C-A	295.71	73.93	295.71	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	730.00	182.50	730.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	434.00	108.50	311.55	0.00	311.72	1.392	63.38	93.99	925.588	F
C-AB	252.32	63.08	252.29	0.00	748.67	0.337	0.98	0.98	7.306	A
C-A	295.68	73.92	295.68	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	730.00	182.50	730.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	434.00	108.50	311.63	0.00	311.72	1.392	93.99	124.58	1277.578	F
C-AB	252.33	63.08	252.32	0.00	748.68	0.337	0.98	0.99	7.306	A
C-A	295.67	73.92	295.67	0.00	-	-	-	-	-	-
A-B	265.00	66.25	265.00	0.00	-	-	-	-	-	-
A-C	730.00	182.50	730.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	257.51	17.17	211.197	F	F
C-AB	13.97	0.93	7.184	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	720.70	48.05	574.662	F	F
C-AB	14.89	0.99	7.306	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1180.26	78.68	925.588	F	F
C-AB	14.91	0.99	7.306	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1639.26	109.28	1277.578	F	F
C-AB	14.91	0.99	7.306	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		80.63	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	654.00	100.000
B	FLAT	✓	348.00	100.000
C	FLAT	✓	681.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	209.000	445.000
	B	195.000	0.000	153.000
	C	542.000	139.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.56	0.00	0.44
	C	0.80	0.20	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.98	157.23	14.41	F	348.00	348.00	600.22	103.49	10.00	617.68	106.50
C-AB	0.41	7.06	1.31	A	362.33	362.33	78.06	12.93	1.30	78.12	12.94
C-A	-	-	-	-	318.67	318.67	-	-	-	-	-
A-B	-	-	-	-	209.00	209.00	-	-	-	-	-
A-C	-	-	-	-	445.00	445.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	316.90	0.00	357.66	0.973	0.00	7.78	66.266	F
C-AB	359.60	89.90	354.51	0.00	875.25	0.411	0.00	1.27	6.909	A
C-A	321.40	80.35	321.40	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	445.00	111.25	445.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	336.19	0.00	356.65	0.976	7.78	10.73	116.612	F
C-AB	363.20	90.80	363.09	0.00	877.48	0.414	1.27	1.30	7.062	A
C-A	317.80	79.45	317.80	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	445.00	111.25	445.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	339.74	0.00	356.63	0.976	10.73	12.79	139.955	F
C-AB	363.25	90.81	363.22	0.00	877.54	0.414	1.30	1.31	7.062	A
C-A	317.75	79.44	317.75	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	445.00	111.25	445.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	348.00	87.00	341.54	0.00	356.63	0.976	12.79	14.41	157.234	F
C-AB	363.28	90.82	363.26	0.00	877.55	0.414	1.31	1.31	7.063	A
C-A	317.72	79.43	317.72	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	445.00	111.25	445.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	78.21	5.21	66.266	F	E
C-AB	18.55	1.24	6.909	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	140.44	9.36	116.612	F	F
C-AB	19.82	1.32	7.062	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	177.13	11.81	139.955	F	F
C-AB	19.84	1.32	7.062	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	204.43	13.63	157.234	F	F
C-AB	19.85	1.32	7.063	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		1140.84	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	969.00	100.000
B	FLAT	✓	476.00	100.000
C	FLAT	✓	551.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	262.000	707.000
	B	263.000	0.000	213.000
	C	451.000	100.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.55	0.00	0.45
	C	0.82	0.18	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.54	1732.98	168.44	F	476.00	476.00	5098.63	642.68	84.98	7851.54	989.69
C-AB	0.33	7.15	0.96	A	248.62	248.62	56.81	13.71	0.95	56.84	13.72
C-A	-	-	-	-	302.38	302.38	-	-	-	-	-
A-B	-	-	-	-	262.00	262.00	-	-	-	-	-
A-C	-	-	-	-	707.00	707.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	302.96	0.00	309.96	1.536	0.00	43.26	272.119	F
C-AB	246.78	61.70	243.07	0.00	754.50	0.327	0.00	0.93	7.037	A
C-A	304.22	76.06	304.22	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	308.99	0.00	309.21	1.539	43.26	85.01	764.899	F
C-AB	249.21	62.30	249.14	0.00	756.19	0.330	0.93	0.95	7.148	A
C-A	301.79	75.45	301.79	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	309.12	0.00	309.20	1.539	85.01	126.73	1248.394	F
C-AB	249.24	62.31	249.22	0.00	756.23	0.330	0.95	0.95	7.152	A
C-A	301.76	75.44	301.76	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	309.16	0.00	309.20	1.539	126.73	168.44	1732.984	F
C-AB	249.25	62.31	249.24	0.00	756.24	0.330	0.95	0.96	7.153	A
C-A	301.75	75.44	301.75	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	334.58	22.31	272.119	F	F
C-AB	13.54	0.90	7.037	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	962.13	64.14	764.899	F	F
C-AB	14.41	0.96	7.148	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1588.10	105.87	1248.394	F	F
C-AB	14.43	0.96	7.152	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2213.81	147.59	1732.984	F	F
C-AB	14.43	0.96	7.153	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		81.21	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	648.00	100.000
B	FLAT	✓	350.00	100.000
C	FLAT	✓	676.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	206.000	442.000
	B	196.000	0.000	154.000
	C	538.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.56	0.00	0.44
	C	0.80	0.20	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.98	156.85	14.46	F	350.00	350.00	602.30	103.25	10.04	619.79	106.25
C-AB	0.41	7.01	1.28	A	356.82	356.82	76.15	12.81	1.27	76.21	12.82
C-A	-	-	-	-	319.18	319.18	-	-	-	-	-
A-B	-	-	-	-	206.00	206.00	-	-	-	-	-
A-C	-	-	-	-	442.00	442.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	318.79	0.00	359.64	0.973	0.00	7.80	66.098	F
C-AB	354.17	88.54	349.20	0.00	873.38	0.406	0.00	1.24	6.866	A
C-A	321.83	80.46	321.83	0.00	-	-	-	-	-	-
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	442.00	110.50	442.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	338.15	0.00	358.66	0.976	7.80	10.77	116.328	F
C-AB	357.66	89.42	357.55	0.00	875.54	0.409	1.24	1.27	7.011	A
C-A	318.34	79.58	318.34	0.00	-	-	-	-	-	-
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	442.00	110.50	442.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	341.72	0.00	358.64	0.976	10.77	12.84	139.611	F
C-AB	357.71	89.43	357.68	0.00	875.60	0.409	1.27	1.28	7.011	A
C-A	318.29	79.57	318.29	0.00	-	-	-	-	-	-
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	442.00	110.50	442.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	343.51	0.00	358.63	0.976	12.84	14.46	156.853	F
C-AB	357.73	89.43	357.71	0.00	875.62	0.409	1.28	1.28	7.015	A
C-A	318.27	79.57	318.27	0.00	-	-	-	-	-	-
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	442.00	110.50	442.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	78.49	5.23	66.098	F	E
C-AB	18.12	1.21	6.866	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	140.93	9.40	116.328	F	F
C-AB	19.33	1.29	7.011	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	177.74	11.85	139.611	F	F
C-AB	19.35	1.29	7.011	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	205.14	13.68	156.853	F	F
C-AB	19.36	1.29	7.015	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		1179.84	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	969.00	100.000
B	FLAT	✓	476.00	100.000
C	FLAT	✓	607.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	262.000	707.000
	B	263.000	0.000	213.000
	C	507.000	100.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.55	0.00	0.45
	C	0.84	0.16	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.58	1854.01	175.89	F	476.00	476.00	5318.69	670.42	88.64	8396.04	1058.32
C-AB	0.34	6.91	1.07	A	273.59	273.59	63.71	13.97	1.06	63.75	13.98
C-A	-	-	-	-	333.41	333.41	-	-	-	-	-
A-B	-	-	-	-	262.00	262.00	-	-	-	-	-
A-C	-	-	-	-	707.00	707.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	295.88	0.00	302.45	1.574	0.00	45.03	288.951	F
C-AB	271.37	67.84	267.21	0.00	797.11	0.340	0.00	1.04	6.795	A
C-A	335.63	83.91	335.63	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	301.44	0.00	301.62	1.578	45.03	88.67	816.137	F
C-AB	274.30	68.58	274.22	0.00	799.10	0.343	1.04	1.06	6.912	A
C-A	332.70	83.17	332.70	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	301.54	0.00	301.61	1.578	88.67	132.28	1334.525	F
C-AB	274.34	68.58	274.31	0.00	799.16	0.343	1.06	1.07	6.914	A
C-A	332.66	83.17	332.66	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	476.00	119.00	301.57	0.00	301.60	1.578	132.28	175.89	1854.009	F
C-AB	274.36	68.59	274.35	0.00	799.17	0.343	1.07	1.07	6.914	A
C-A	332.64	83.16	332.64	0.00	-	-	-	-	-	-
A-B	262.00	65.50	262.00	0.00	-	-	-	-	-	-
A-C	707.00	176.75	707.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	347.34	23.16	288.951	F	F
C-AB	15.14	1.01	6.795	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1002.83	66.86	816.137	F	F
C-AB	16.17	1.08	6.912	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1657.18	110.48	1334.525	F	F
C-AB	16.19	1.08	6.914	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2311.33	154.09	1854.009	F	F
C-AB	16.20	1.08	6.914	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Eastbound	T-Junction	Two-way	A,B,C		84.12	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street S		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.05		0.00		2.20	102.33	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										37	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	530.609	0.092	0.233	0.147	0.333
1	B-C	676.323	0.099	0.250	-	-
1	C-B	633.224	0.234	0.234	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	650.00	100.000
B	FLAT	✓	350.00	100.000
C	FLAT	✓	690.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	209.000	441.000
	B	196.000	0.000	154.000
	C	552.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.56	0.00	0.44
	C	0.80	0.20	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.98	164.53	15.20	F	350.00	350.00	625.26	107.19	10.42	644.69	110.52
C-AB	0.41	7.00	1.32	A	364.92	364.92	78.49	12.91	1.31	78.55	12.91
C-A	-	-	-	-	325.08	325.08	-	-	-	-	-
A-B	-	-	-	-	209.00	209.00	-	-	-	-	-
A-C	-	-	-	-	441.00	441.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	318.00	0.00	357.74	0.978	0.00	8.00	67.458	F
C-AB	362.14	90.54	357.02	0.00	883.03	0.410	0.00	1.28	6.840	A
C-A	327.86	81.96	327.86	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	441.00	110.25	441.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	337.39	0.00	356.73	0.981	8.00	11.15	120.141	F
C-AB	365.80	91.45	365.69	0.00	885.29	0.413	1.28	1.31	6.992	A
C-A	324.20	81.05	324.20	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	441.00	110.25	441.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	340.99	0.00	356.71	0.981	11.15	13.41	145.425	F
C-AB	365.85	91.46	365.82	0.00	885.35	0.413	1.31	1.32	6.992	A
C-A	324.15	81.04	324.15	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	441.00	110.25	441.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	87.50	342.83	0.00	356.71	0.981	13.41	15.20	164.532	F
C-AB	365.88	91.47	365.86	0.00	885.37	0.413	1.32	1.32	6.995	A
C-A	324.12	81.03	324.12	0.00	-	-	-	-	-	-
A-B	209.00	52.25	209.00	0.00	-	-	-	-	-	-
A-C	441.00	110.25	441.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	79.98	5.33	67.458	F	E
C-AB	18.65	1.24	6.840	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	145.35	9.69	120.141	F	F
C-AB	19.92	1.33	6.992	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	184.95	12.33	145.425	F	F
C-AB	19.95	1.33	6.992	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	214.98	14.33	164.532	F	F
C-AB	19.96	1.33	6.995	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 20 Warley Street - A127 Westbound Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 10:24:44

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	76.81	827.57	1.24	F	94.71	717.00	1.21	F
Stream C-AB	1.91	7.12	0.48	A	0.93	6.91	0.34	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	108.17	1194.96	1.37	F	129.55	1022.47	1.31	F
Stream C-AB	2.03	7.33	0.49	A	1.00	7.17	0.36	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	91.99	987.58	1.30	F	128.05	1012.06	1.31	F
Stream C-AB	2.02	7.14	0.49	A	1.02	7.18	0.36	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	94.03	1036.91	1.31	F	122.70	967.10	1.29	F
Stream C-AB	2.04	7.34	0.49	A	1.01	7.17	0.36	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	100.69	1135.15	1.35	F	124.37	984.18	1.30	F
Stream C-AB	2.20	7.65	0.51	A	1.03	7.22	0.36	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 10:24:41

File summary

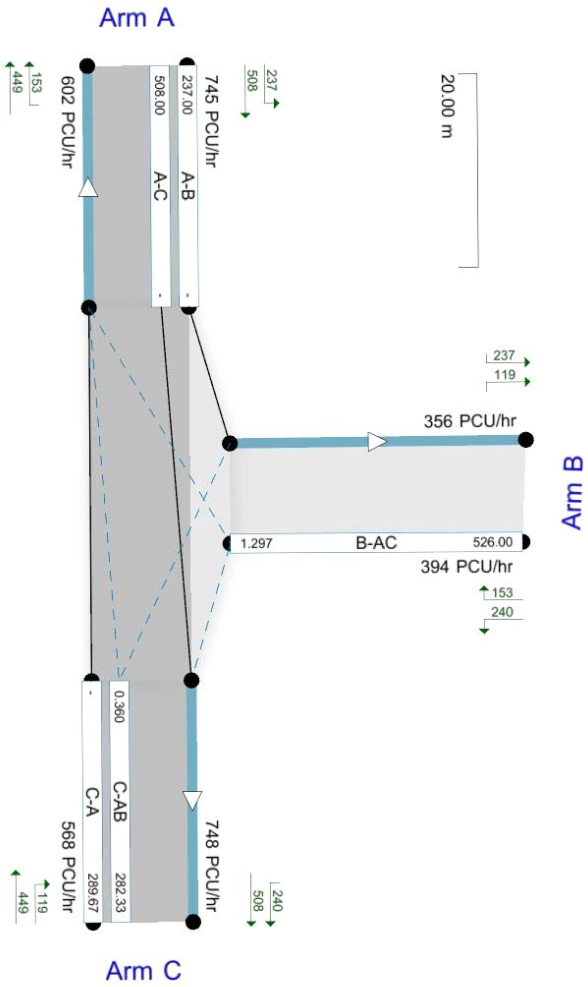
Title	Warley Street - A127 Westbound
Location	Brentwood
Site Number	20
Date	05/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		370.74	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	650.00	100.000
B	FLAT	✓	374.00	100.000
C	FLAT	✓	833.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	109.000	541.000
	B	253.000	0.000	121.000
	C	695.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.17	0.83
	B	0.68	0.00	0.32
	C	0.83	0.17	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.24	827.57	76.81	F	374.00	374.00	2386.56	382.87	39.78	2975.29	477.32
C-AB	0.48	7.12	1.91	A	469.88	469.88	113.09	14.44	1.88	113.20	14.45
C-A	-	-	-	-	363.12	363.12	-	-	-	-	-
A-B	-	-	-	-	109.00	109.00	-	-	-	-	-
A-C	-	-	-	-	541.00	541.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	374.00	93.50	288.81	0.00	302.37	1.237	0.00	21.30	153.599	F
C-AB	464.91	116.23	457.59	0.00	980.97	0.474	0.00	1.83	6.882	A
C-A	368.09	92.02	368.09	0.00	-	-	-	-	-	-
A-B	109.00	27.25	109.00	0.00	-	-	-	-	-	-
A-C	541.00	135.25	541.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	374.00	93.50	299.41	0.00	300.73	1.244	21.30	39.94	390.390	F
C-AB	471.43	117.86	471.21	0.00	984.66	0.479	1.83	1.89	7.111	A
C-A	361.57	90.39	361.57	0.00	-	-	-	-	-	-
A-B	109.00	27.25	109.00	0.00	-	-	-	-	-	-
A-C	541.00	135.25	541.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	374.00	93.50	300.15	0.00	300.69	1.244	39.94	58.41	608.799	F
C-AB	471.56	117.89	471.50	0.00	984.80	0.479	1.89	1.90	7.117	A
C-A	361.44	90.36	361.44	0.00	-	-	-	-	-	-
A-B	109.00	27.25	109.00	0.00	-	-	-	-	-	-
A-C	541.00	135.25	541.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	374.00	93.50	300.38	0.00	300.67	1.244	58.41	76.81	827.568	F
C-AB	471.61	117.90	471.58	0.00	984.83	0.479	1.90	1.91	7.119	A
C-A	361.39	90.35	361.39	0.00	-	-	-	-	-	-
A-B	109.00	27.25	109.00	0.00	-	-	-	-	-	-
A-C	541.00	135.25	541.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	174.80	11.65	153.599	F	F
C-AB	26.49	1.77	6.882	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	459.77	30.65	390.390	F	F
C-AB	28.82	1.92	7.111	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	737.77	49.18	608.799	F	F
C-AB	28.88	1.93	7.117	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1014.22	67.61	827.568	F	F
C-AB	28.90	1.93	7.119	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		471.12	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	655.00	100.000
B	FLAT	✓	517.00	100.000
C	FLAT	✓	566.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	193.000	462.000
	B	196.000	0.000	321.000
	C	445.000	121.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.29	0.71
	B	0.38	0.00	0.62
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.21	717.00	94.71	F	517.00	517.00	2943.87	341.65	49.06	3574.75	414.87
C-AB	0.34	6.91	0.93	A	273.84	273.84	55.30	12.12	0.92	55.33	12.12
C-A	-	-	-	-	292.16	292.16	-	-	-	-	-
A-B	-	-	-	-	193.00	193.00	-	-	-	-	-
A-C	-	-	-	-	462.00	462.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	517.00	129.25	411.65	0.00	427.28	1.210	0.00	26.34	131.743	F
C-AB	272.16	68.04	268.54	0.00	797.16	0.341	0.00	0.91	6.805	A
C-A	293.84	73.46	293.84	0.00	-	-	-	-	-	-
A-B	193.00	48.25	193.00	0.00	-	-	-	-	-	-
A-C	462.00	115.50	462.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	517.00	129.25	425.20	0.00	426.60	1.212	26.34	49.29	337.314	F
C-AB	274.38	68.59	274.32	0.00	798.63	0.344	0.91	0.92	6.905	A
C-A	291.62	72.91	291.62	0.00	-	-	-	-	-	-
A-B	193.00	48.25	193.00	0.00	-	-	-	-	-	-
A-C	462.00	115.50	462.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	517.00	129.25	426.02	0.00	426.59	1.212	49.29	72.03	526.959	F
C-AB	274.40	68.60	274.38	0.00	798.67	0.344	0.92	0.93	6.909	A
C-A	291.60	72.90	291.60	0.00	-	-	-	-	-	-
A-B	193.00	48.25	193.00	0.00	-	-	-	-	-	-
A-C	462.00	115.50	462.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	517.00	129.25	426.28	0.00	426.59	1.212	72.03	94.71	717.003	F
C-AB	274.41	68.60	274.40	0.00	798.67	0.344	0.93	0.93	6.907	A
C-A	291.59	72.90	291.59	0.00	-	-	-	-	-	-
A-B	193.00	48.25	193.00	0.00	-	-	-	-	-	-
A-C	462.00	115.50	462.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	215.48	14.37	131.743	F	F
C-AB	13.26	0.88	6.805	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	567.68	37.85	337.314	F	F
C-AB	14.01	0.93	6.905	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	910.04	60.67	526.959	F	F
C-AB	14.02	0.93	6.909	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1250.67	83.38	717.003	F	F
C-AB	14.02	0.93	6.907	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		543.06	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	691.00	100.000
B	FLAT	✓	396.00	100.000
C	FLAT	✓	839.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	142.000	549.000
	B	275.000	0.000	121.000
	C	701.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.21	0.79
	B	0.69	0.00	0.31
	C	0.84	0.16	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.37	1194.96	108.17	F	396.00	396.00	3303.49	500.53	55.06	4513.76	683.90
C-AB	0.49	7.33	2.03	A	481.86	481.86	120.41	14.99	2.01	120.53	15.01
C-A	-	-	-	-	357.14	357.14	-	-	-	-	-
A-B	-	-	-	-	142.00	142.00	-	-	-	-	-
A-C	-	-	-	-	549.00	549.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	396.00	99.00	281.97	0.00	291.86	1.357	0.00	28.51	200.887	F
C-AB	476.48	119.12	468.70	0.00	979.19	0.487	0.00	1.94	7.059	A
C-A	362.52	90.63	362.52	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	396.00	99.00	289.54	0.00	290.12	1.365	28.51	55.12	540.745	F
C-AB	483.54	120.88	483.28	0.00	983.18	0.492	1.94	2.01	7.317	A
C-A	355.46	88.87	355.46	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	396.00	99.00	289.85	0.00	290.07	1.365	55.12	81.66	867.313	F
C-AB	483.69	120.92	483.62	0.00	983.33	0.492	2.01	2.03	7.325	A
C-A	355.31	88.83	355.31	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	396.00	99.00	289.94	0.00	290.05	1.365	81.66	108.17	1194.957	F
C-AB	483.75	120.94	483.72	0.00	983.37	0.492	2.03	2.03	7.327	A
C-A	355.25	88.81	355.25	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	226.39	15.09	200.887	F	F
C-AB	28.09	1.87	7.059	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	627.44	41.83	540.745	F	F
C-AB	30.71	2.05	7.317	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1025.90	68.39	867.313	F	F
C-AB	30.79	2.05	7.325	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1423.76	94.92	1194.957	F	F
C-AB	30.82	2.05	7.327	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		671.28	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	728.00	100.000
B	FLAT	✓	532.00	100.000
C	FLAT	✓	569.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	221.000	507.000
	B	211.000	0.000	321.000
	C	448.000	121.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.30	0.70
	B	0.40	0.00	0.60
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.31	1022.47	129.55	F	532.00	532.00	3962.16	446.86	66.04	5204.27	586.95
C-AB	0.36	7.17	1.00	A	281.33	281.33	59.75	12.74	1.00	59.78	12.75
C-A	-	-	-	-	287.67	287.67	-	-	-	-	-
A-B	-	-	-	-	221.00	221.00	-	-	-	-	-
A-C	-	-	-	-	507.00	507.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	532.00	133.00	394.65	0.00	406.14	1.310	0.00	34.34	171.638	F
C-AB	279.47	69.87	275.56	0.00	786.06	0.356	0.00	0.98	7.047	A
C-A	289.53	72.38	289.53	0.00	-	-	-	-	-	-
A-B	221.00	55.25	221.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	532.00	133.00	404.76	0.00	405.39	1.312	34.34	66.15	462.997	F
C-AB	281.93	70.48	281.85	0.00	787.70	0.358	0.98	1.00	7.163	A
C-A	287.07	71.77	287.07	0.00	-	-	-	-	-	-
A-B	221.00	55.25	221.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	532.00	133.00	405.14	0.00	405.38	1.312	66.15	97.86	742.277	F
C-AB	281.95	70.49	281.93	0.00	787.74	0.358	1.00	1.00	7.165	A
C-A	287.05	71.76	287.05	0.00	-	-	-	-	-	-
A-B	221.00	55.25	221.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	532.00	133.00	405.25	0.00	405.37	1.312	97.86	129.55	1022.468	F
C-AB	281.97	70.49	281.96	0.00	787.75	0.358	1.00	1.00	7.168	A
C-A	287.03	71.76	287.03	0.00	-	-	-	-	-	-
A-B	221.00	55.25	221.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	272.47	18.16	171.638	F	F
C-AB	14.28	0.95	7.047	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	753.89	50.26	462.997	F	F
C-AB	15.14	1.01	7.163	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1230.16	82.01	742.277	F	F
C-AB	15.16	1.01	7.165	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1705.65	113.71	1022.468	F	F
C-AB	15.16	1.01	7.168	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		441.26	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	649.00	100.000
B	FLAT	✓	389.00	100.000
C	FLAT	✓	859.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	142.000	507.000
	B	268.000	0.000	121.000
	C	721.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.69	0.00	0.31
	C	0.84	0.16	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.30	987.58	91.99	F	389.00	389.00	2829.70	436.46	47.16	3676.36	567.05
C-AB	0.49	7.14	2.02	A	489.54	489.54	119.75	14.68	2.00	119.87	14.69
C-A	-	-	-	-	369.46	369.46	-	-	-	-	-
A-B	-	-	-	-	142.00	142.00	-	-	-	-	-
A-C	-	-	-	-	507.00	507.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	389.00	97.25	289.90	0.00	301.61	1.290	0.00	24.77	173.542	F
C-AB	484.12	121.03	476.38	0.00	999.73	0.484	0.00	1.93	6.885	A
C-A	374.88	93.72	374.88	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	389.00	97.25	299.01	0.00	299.89	1.297	24.77	47.27	455.018	F
C-AB	491.23	122.81	490.98	0.00	1003.68	0.489	1.93	2.00	7.129	A
C-A	367.77	91.94	367.77	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	389.00	97.25	299.50	0.00	299.84	1.297	47.27	69.65	720.892	F
C-AB	491.38	122.85	491.31	0.00	1003.83	0.490	2.00	2.01	7.136	A
C-A	367.62	91.90	367.62	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	389.00	97.25	299.64	0.00	299.82	1.297	69.65	91.99	987.579	F
C-AB	491.45	122.86	491.41	0.00	1003.87	0.490	2.01	2.02	7.141	A
C-A	367.55	91.89	367.55	0.00	-	-	-	-	-	-
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	199.78	13.32	173.542	F	F
C-AB	27.97	1.86	6.885	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	540.66	36.04	455.018	F	F
C-AB	30.53	2.04	7.129	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	876.97	58.46	720.892	F	F
C-AB	30.61	2.04	7.136	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1212.29	80.82	987.579	F	F
C-AB	30.63	2.04	7.141	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		662.06	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	734.00	100.000
B	FLAT	✓	530.00	100.000
C	FLAT	✓	572.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	227.000	507.000
	B	209.000	0.000	321.000
	C	451.000	121.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.31	0.69
	B	0.39	0.00	0.61
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.31	1012.06	128.05	F	530.00	530.00	3917.84	443.53	65.30	5132.80	581.07
C-AB	0.36	7.18	1.02	A	283.26	283.26	60.48	12.81	1.01	60.52	12.82
C-A	-	-	-	-	288.74	288.74	-	-	-	-	-
A-B	-	-	-	-	227.00	227.00	-	-	-	-	-
A-C	-	-	-	-	507.00	507.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	530.00	132.50	394.08	0.00	405.68	1.306	0.00	33.98	170.311	F
C-AB	281.37	70.34	277.41	0.00	787.19	0.357	0.00	0.99	7.057	A
C-A	290.63	72.66	290.63	0.00	-	-	-	-	-	-
A-B	227.00	56.75	227.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	530.00	132.50	404.27	0.00	404.92	1.309	33.98	65.41	458.732	F
C-AB	283.87	70.97	283.80	0.00	788.86	0.360	0.99	1.01	7.178	A
C-A	288.13	72.03	288.13	0.00	-	-	-	-	-	-
A-B	227.00	56.75	227.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	530.00	132.50	404.66	0.00	404.91	1.309	65.41	96.75	734.947	F
C-AB	283.90	70.97	283.88	0.00	788.90	0.360	1.01	1.01	7.177	A
C-A	288.10	72.03	288.10	0.00	-	-	-	-	-	-
A-B	227.00	56.75	227.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	530.00	132.50	404.77	0.00	404.90	1.309	96.75	128.05	1012.065	F
C-AB	283.91	70.98	283.90	0.00	788.91	0.360	1.01	1.02	7.177	A
C-A	288.09	72.02	288.09	0.00	-	-	-	-	-	-
A-B	227.00	56.75	227.00	0.00	-	-	-	-	-	-
A-C	507.00	126.75	507.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	269.86	17.99	170.311	F	F
C-AB	14.45	0.96	7.057	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	745.69	49.71	458.732	F	F
C-AB	15.33	1.02	7.178	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1216.26	81.08	734.947	F	F
C-AB	15.35	1.02	7.177	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1686.04	112.40	1012.065	F	F
C-AB	15.35	1.02	7.177	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		462.89	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	695.00	100.000
B	FLAT	✓	383.00	100.000
C	FLAT	✓	839.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	146.000	549.000
	B	262.000	0.000	121.000
	C	701.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.21	0.79
	B	0.68	0.00	0.32
	C	0.84	0.16	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.31	1036.91	94.03	F	383.00	383.00	2887.41	452.34	48.12	3796.90	594.81
C-AB	0.49	7.34	2.04	A	482.61	482.61	121.00	15.04	2.02	121.13	15.06
C-A	-	-	-	-	356.39	356.39	-	-	-	-	-
A-B	-	-	-	-	146.00	146.00	-	-	-	-	-
A-C	-	-	-	-	549.00	549.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	282.23	0.00	293.43	1.305	0.00	25.19	180.504	F
C-AB	477.20	119.30	469.38	0.00	978.60	0.488	0.00	1.95	7.075	A
C-A	361.80	90.45	361.80	0.00	-	-	-	-	-	-
A-B	146.00	36.50	146.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	290.89	0.00	291.69	1.313	25.19	48.22	475.841	F
C-AB	484.29	121.07	484.04	0.00	982.61	0.493	1.95	2.02	7.338	A
C-A	354.71	88.68	354.71	0.00	-	-	-	-	-	-
A-B	146.00	36.50	146.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	291.33	0.00	291.64	1.313	48.22	71.14	755.933	F
C-AB	484.45	121.11	484.38	0.00	982.77	0.493	2.02	2.04	7.342	A
C-A	354.55	88.64	354.55	0.00	-	-	-	-	-	-
A-B	146.00	36.50	146.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	291.46	0.00	291.62	1.313	71.14	94.03	1036.913	F
C-AB	484.51	121.13	484.48	0.00	982.81	0.493	2.04	2.04	7.345	A
C-A	354.49	88.62	354.49	0.00	-	-	-	-	-	-
A-B	146.00	36.50	146.00	0.00	-	-	-	-	-	-
A-C	549.00	137.25	549.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	202.48	13.50	180.504	F	F
C-AB	28.22	1.88	7.075	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	550.89	36.73	475.841	F	F
C-AB	30.86	2.06	7.338	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	895.27	59.68	755.933	F	F
C-AB	30.95	2.06	7.342	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1238.77	82.58	1036.913	F	F
C-AB	30.97	2.06	7.345	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		631.67	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	731.00	100.000
B	FLAT	✓	526.00	100.000
C	FLAT	✓	571.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	223.000	508.000
	B	205.000	0.000	321.000
	C	450.000	121.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.31	0.69
	B	0.39	0.00	0.61
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.29	967.10	122.70	F	526.00	526.00	3760.25	428.93	62.67	4871.54	555.69
C-AB	0.36	7.17	1.01	A	282.53	282.53	60.17	12.78	1.00	60.21	12.79
C-A	-	-	-	-	288.47	288.47	-	-	-	-	-
A-B	-	-	-	-	223.00	223.00	-	-	-	-	-
A-C	-	-	-	-	508.00	508.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	395.10	0.00	407.18	1.292	0.00	32.72	164.433	F
C-AB	280.65	70.16	276.71	0.00	786.99	0.357	0.00	0.98	7.050	A
C-A	290.35	72.59	290.35	0.00	-	-	-	-	-	-
A-B	223.00	55.75	223.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	405.70	0.00	406.43	1.294	32.72	62.80	440.172	F
C-AB	283.13	70.78	283.06	0.00	788.65	0.359	0.98	1.00	7.170	A
C-A	287.87	71.97	287.87	0.00	-	-	-	-	-	-
A-B	223.00	55.75	223.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	406.14	0.00	406.41	1.294	62.80	92.76	703.204	F
C-AB	283.16	70.79	283.14	0.00	788.69	0.359	1.00	1.01	7.169	A
C-A	287.84	71.96	287.84	0.00	-	-	-	-	-	-
A-B	223.00	55.75	223.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	406.26	0.00	406.41	1.294	92.76	122.70	967.101	F
C-AB	283.17	70.79	283.16	0.00	788.70	0.359	1.01	1.01	7.169	A
C-A	287.83	71.96	287.83	0.00	-	-	-	-	-	-
A-B	223.00	55.75	223.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	260.82	17.39	164.433	F	F
C-AB	14.38	0.96	7.050	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	716.68	47.78	440.172	F	F
C-AB	15.25	1.02	7.170	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1166.77	77.78	703.204	F	F
C-AB	15.27	1.02	7.169	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1615.98	107.73	967.101	F	F
C-AB	15.27	1.02	7.169	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		500.37	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	751.00	100.000
B	FLAT	✓	383.00	100.000
C	FLAT	✓	839.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	199.000	552.000
	B	262.000	0.000	121.000
	C	701.000	138.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.68	0.00	0.32
	C	0.84	0.16	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.35	1135.15	100.69	F	383.00	383.00	3080.98	482.66	51.35	4149.42	650.04
C-AB	0.51	7.65	2.20	A	493.43	493.43	129.89	15.79	2.16	130.04	15.81
C-A	-	-	-	-	345.57	345.57	-	-	-	-	-
A-B	-	-	-	-	199.00	199.00	-	-	-	-	-
A-C	-	-	-	-	552.00	552.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	276.25	0.00	286.60	1.336	0.00	26.69	193.501	F
C-AB	487.54	121.88	479.17	0.00	970.29	0.502	0.00	2.09	7.339	A
C-A	351.46	87.87	351.46	0.00	-	-	-	-	-	-
A-B	199.00	49.75	199.00	0.00	-	-	-	-	-	-
A-C	552.00	138.00	552.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	284.07	0.00	284.73	1.345	26.69	51.42	516.450	F
C-AB	495.25	123.81	494.96	0.00	974.67	0.508	2.09	2.17	7.638	A
C-A	343.75	85.94	343.75	0.00	-	-	-	-	-	-
A-B	199.00	49.75	199.00	0.00	-	-	-	-	-	-
A-C	552.00	138.00	552.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	284.42	0.00	284.67	1.345	51.42	76.07	825.289	F
C-AB	495.44	123.86	495.35	0.00	974.85	0.508	2.17	2.19	7.647	A
C-A	343.56	85.89	343.56	0.00	-	-	-	-	-	-
A-B	199.00	49.75	199.00	0.00	-	-	-	-	-	-
A-C	552.00	138.00	552.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	383.00	95.75	284.52	0.00	284.65	1.346	76.07	100.69	1135.149	F
C-AB	495.51	123.88	495.47	0.00	974.90	0.508	2.19	2.20	7.650	A
C-A	343.49	85.87	343.49	0.00	-	-	-	-	-	-
A-B	199.00	49.75	199.00	0.00	-	-	-	-	-	-
A-C	552.00	138.00	552.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	213.03	14.20	193.501	F	F
C-AB	30.14	2.01	7.339	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	586.07	39.07	516.450	F	F
C-AB	33.17	2.21	7.638	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	956.22	63.75	825.289	F	F
C-AB	33.27	2.22	7.647	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1325.67	88.38	1135.149	F	F
C-AB	33.31	2.22	7.650	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Warley Str - A127 Westbound	T-Junction	Two-way	A,B,C		641.45	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Warley Street N		Major
B	B	A127 Slip Road		Minor
C	C	Warley Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.10		0.00		2.20	92.68	✓	0.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.70										64	58

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564.104	0.102	0.259	0.163	0.369
1	B-C	706.735	0.108	0.273	-	-
1	C-B	627.635	0.242	0.242	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	745.00	100.000
B	FLAT	✓	526.00	100.000
C	FLAT	✓	572.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	237.000	508.000
	B	205.000	0.000	321.000
	C	451.000	121.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.32	0.68
	B	0.39	0.00	0.61
	C	0.79	0.21	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.30	984.18	124.37	F	526.00	526.00	3809.25	434.52	63.49	4956.02	565.33
C-AB	0.36	7.22	1.03	A	284.25	284.25	61.16	12.91	1.02	61.20	12.92
C-A	-	-	-	-	287.75	287.75	-	-	-	-	-
A-B	-	-	-	-	237.00	237.00	-	-	-	-	-
A-C	-	-	-	-	508.00	508.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	393.57	0.00	405.45	1.297	0.00	33.11	166.719	F
C-AB	282.33	70.58	278.32	0.00	785.19	0.360	0.00	1.00	7.096	A
C-A	289.67	72.42	289.67	0.00	-	-	-	-	-	-
A-B	237.00	59.25	237.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	403.99	0.00	404.69	1.300	33.11	63.61	447.270	F
C-AB	284.86	71.22	284.79	0.00	786.89	0.362	1.00	1.02	7.221	A
C-A	287.14	71.78	287.14	0.00	-	-	-	-	-	-
A-B	237.00	59.25	237.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	404.41	0.00	404.68	1.300	63.61	94.01	715.283	F
C-AB	284.89	71.22	284.87	0.00	786.93	0.362	1.02	1.03	7.220	A
C-A	287.11	71.78	287.11	0.00	-	-	-	-	-	-
A-B	237.00	59.25	237.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	526.00	131.50	404.53	0.00	404.67	1.300	94.01	124.37	984.175	F
C-AB	284.91	71.23	284.90	0.00	786.94	0.362	1.03	1.03	7.224	A
C-A	287.09	71.77	287.09	0.00	-	-	-	-	-	-
A-B	237.00	59.25	237.00	0.00	-	-	-	-	-	-
A-C	508.00	127.00	508.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	263.55	17.57	166.719	F	F
C-AB	14.60	0.97	7.096	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	725.65	48.38	447.270	F	F
C-AB	15.51	1.03	7.221	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1182.19	78.81	715.283	F	F
C-AB	15.52	1.03	7.220	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1637.88	109.19	984.175	F	F
C-AB	15.53	1.04	7.224	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 21 A127 Westbound - Thorndon Avenue Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 04/02/2016 12:40:00

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	0.11	20.37	0.10	C	0.14	25.84	0.13	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	0.17	31.77	0.14	D	0.28	40.74	0.22	E
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	0.12	23.12	0.11	C	0.19	31.04	0.16	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	0.12	23.14	0.11	C	0.19	31.04	0.16	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 04/02/2016 12:39:56

File summary

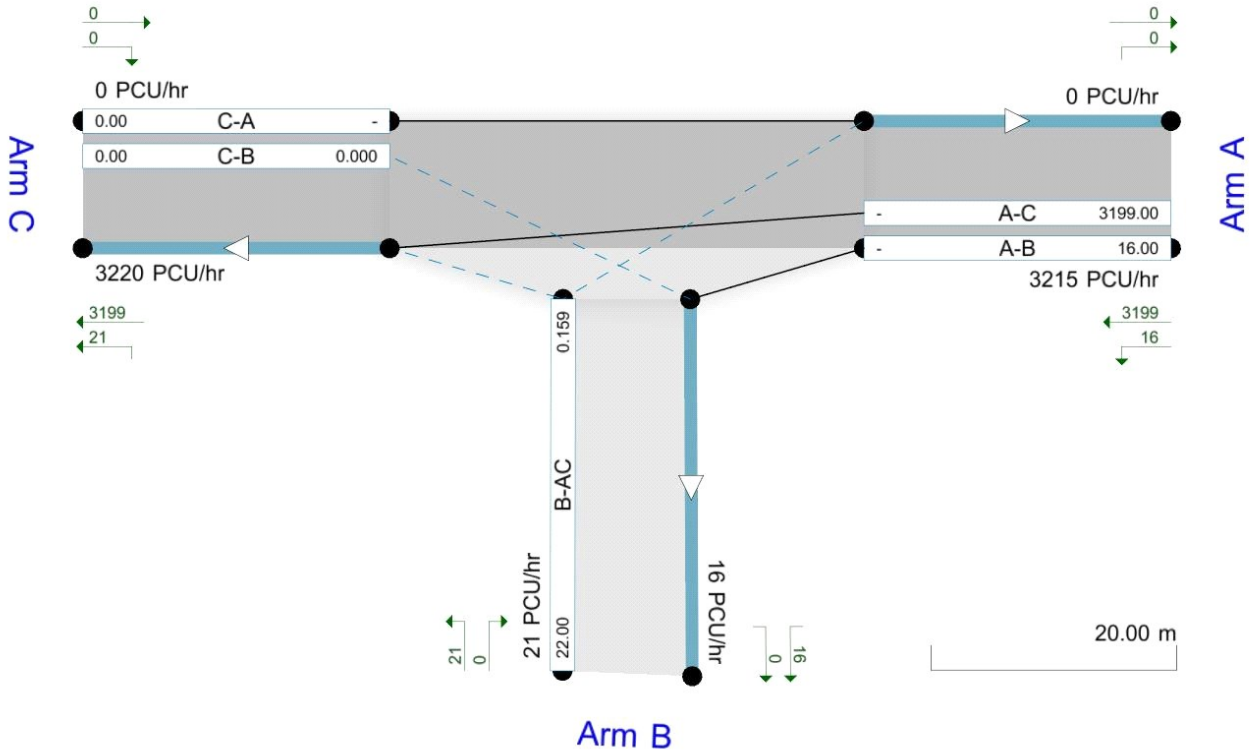
Title	A127 Westbound - Thorndon Avenue
Location	Brentwood
Site Number	21
Date	05/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()

Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		20.37	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	2837.00	100.000
B	FLAT	✓	19.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	2810.000
	B	0.000	0.000	19.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	20.37	0.11	C	19.00	19.00	6.25	19.73	0.10	6.25	19.73
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	2810.00	2810.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.58	0.00	195.74	0.097	0.00	0.10	20.275	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	179.11	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2810.00	702.50	2810.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.99	0.00	195.74	0.097	0.10	0.11	20.366	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	179.11	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2810.00	702.50	2810.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	195.74	0.097	0.11	0.11	20.368	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	179.11	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2810.00	702.50	2810.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	195.74	0.097	0.11	0.11	20.368	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	179.11	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2810.00	702.50	2810.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.46	0.10	20.275	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.59	0.11	20.366	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.60	0.11	20.368	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.60	0.11	20.368	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		25.84	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3073.00	100.000
B	FLAT	✓	20.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	16.000	3057.000
	B	0.000	0.000	20.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.13	25.84	0.14	D	20.00	20.00	8.28	24.84	0.14	8.28	24.85
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	16.00	16.00	-	-	-	-	-
A-C	-	-	-	-	3057.00	3057.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.00	5.00	19.44	0.00	159.29	0.126	0.00	0.14	25.647	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	146.27	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3057.00	764.25	3057.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.00	5.00	19.99	0.00	159.29	0.126	0.14	0.14	25.838	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	146.27	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3057.00	764.25	3057.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.00	5.00	20.00	0.00	159.29	0.126	0.14	0.14	25.841	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	146.27	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3057.00	764.25	3057.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	20.00	5.00	20.00	0.00	159.29	0.126	0.14	0.14	25.844	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	146.27	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3057.00	764.25	3057.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.91	0.13	25.647	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.11	0.14	25.838	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.13	0.14	25.841	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.13	0.14	25.844	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		31.77	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3260.00	100.000
B	FLAT	✓	19.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	28.000	3232.000
	B	0.000	0.000	19.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.14	31.77	0.17	D	19.00	19.00	9.59	30.30	0.16	9.60	30.32
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	28.00	28.00	-	-	-	-	-
A-C	-	-	-	-	3232.00	3232.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.36	0.00	132.30	0.144	0.00	0.16	31.432	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	120.24	0.000	0.00	0.00	0.000	A
A-B	28.00	7.00	28.00	0.00	-	-	-	-	-	-
A-C	3232.00	808.00	3232.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.99	0.00	132.30	0.144	0.16	0.16	31.762	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	120.24	0.000	0.00	0.00	0.000	A
A-B	28.00	7.00	28.00	0.00	-	-	-	-	-	-
A-C	3232.00	808.00	3232.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	132.30	0.144	0.16	0.17	31.768	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	120.24	0.000	0.00	0.00	0.000	A
A-B	28.00	7.00	28.00	0.00	-	-	-	-	-	-
A-C	3232.00	808.00	3232.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	132.30	0.144	0.17	0.17	31.770	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	120.24	0.000	0.00	0.00	0.000	A
A-B	28.00	7.00	28.00	0.00	-	-	-	-	-	-
A-C	3232.00	808.00	3232.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.19	0.15	31.432	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.45	0.16	31.762	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.47	0.16	31.768	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.49	0.17	31.770	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		40.74	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3393.00	100.000
B	FLAT	✓	25.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	39.000	3354.000
	B	0.000	0.000	25.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.22	40.74	0.28	E	25.00	25.00	15.96	38.31	0.27	15.98	38.36
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	39.00	39.00	-	-	-	-	-
A-C	-	-	-	-	3354.00	3354.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	25.00	6.25	23.93	0.00	113.32	0.221	0.00	0.27	39.845	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	101.73	0.000	0.00	0.00	0.000	A
A-B	39.00	9.75	39.00	0.00	-	-	-	-	-	-
A-C	3354.00	838.50	3354.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	25.00	6.25	24.97	0.00	113.32	0.221	0.27	0.28	40.710	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	101.73	0.000	0.00	0.00	0.000	A
A-B	39.00	9.75	39.00	0.00	-	-	-	-	-	-
A-C	3354.00	838.50	3354.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	25.00	6.25	24.99	0.00	113.32	0.221	0.28	0.28	40.734	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	101.73	0.000	0.00	0.00	0.000	A
A-B	39.00	9.75	39.00	0.00	-	-	-	-	-	-
A-C	3354.00	838.50	3354.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	25.00	6.25	24.99	0.00	113.32	0.221	0.28	0.28	40.744	E
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	101.73	0.000	0.00	0.00	0.000	A
A-B	39.00	9.75	39.00	0.00	-	-	-	-	-	-
A-C	3354.00	838.50	3354.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.55	0.24	39.845	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.08	0.27	40.710	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.15	0.28	40.734	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.18	0.28	40.744	E	D
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		0.00	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	0.00	100.000
B	FLAT	✓	0.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.33	0.33	0.33
	B	0.33	0.33	0.33
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		0.00	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	0.00	100.000
B	FLAT	✓	0.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.33	0.33	0.33
	B	0.33	0.33	0.33
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	0.00	0.00	-	-	-	-	-
A-C	-	-	-	-	0.00	0.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	0.00	0.00	0.00	0.00	537.26	0.000	0.00	0.00	0.000	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	573.96	0.000	0.00	0.00	0.000	A
A-B	0.00	0.00	0.00	0.00	-	-	-	-	-	-
A-C	0.00	0.00	0.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	0.00	0.00	0.000	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		23.12	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	2977.00	100.000
B	FLAT	✓	19.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	2950.000
	B	0.000	0.000	19.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.11	23.12	0.12	C	19.00	19.00	7.06	22.31	0.12	7.07	22.31
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	2950.00	2950.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.53	0.00	174.71	0.109	0.00	0.12	22.983	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.63	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2950.00	737.50	2950.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.99	0.00	174.71	0.109	0.12	0.12	23.117	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.63	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2950.00	737.50	2950.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	174.71	0.109	0.12	0.12	23.119	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.63	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2950.00	737.50	2950.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	174.71	0.109	0.12	0.12	23.119	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.63	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2950.00	737.50	2950.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.64	0.11	22.983	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.79	0.12	23.117	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.81	0.12	23.119	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.82	0.12	23.119	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		31.04	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3215.00	100.000
B	FLAT	✓	22.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	16.000	3199.000
	B	0.000	0.000	22.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.00	1.00
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.16	31.04	0.19	D	22.00	22.00	10.86	29.61	0.18	10.86	29.63
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	16.00	16.00	-	-	-	-	-
A-C	-	-	-	-	3199.00	3199.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	21.27	0.00	137.97	0.159	0.00	0.18	30.673	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	21.99	0.00	137.97	0.159	0.18	0.19	31.030	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	22.00	0.00	137.97	0.159	0.19	0.19	31.037	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	22.00	0.00	137.97	0.159	0.19	0.19	31.038	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.48	0.17	30.673	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.77	0.18	31.030	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.80	0.19	31.037	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.81	0.19	31.038	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		23.14	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	2978.00	100.000
B	FLAT	✓	19.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	27.000	2951.000
	B	0.000	0.000	19.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.11	23.14	0.12	C	19.00	19.00	7.07	22.33	0.12	7.07	22.33
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	27.00	27.00	-	-	-	-	-
A-C	-	-	-	-	2951.00	2951.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.53	0.00	174.56	0.109	0.00	0.12	23.006	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.49	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2951.00	737.75	2951.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	18.99	0.00	174.56	0.109	0.12	0.12	23.139	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.49	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2951.00	737.75	2951.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	174.56	0.109	0.12	0.12	23.141	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.49	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2951.00	737.75	2951.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	19.00	4.75	19.00	0.00	174.56	0.109	0.12	0.12	23.141	C
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	159.49	0.000	0.00	0.00	0.000	A
A-B	27.00	6.75	27.00	0.00	-	-	-	-	-	-
A-C	2951.00	737.75	2951.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.65	0.11	23.006	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.80	0.12	23.139	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.81	0.12	23.141	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.82	0.12	23.141	C	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A127 West - Thorndon Ave	T-Junction	One-way from A to C	A,B,C		31.04	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A127 E		Major
B	B	Thordon Avenue		Minor
C	C	A127 W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.30		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.70										0	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	474.363	0.054	0.137	0.086	0.195
1	B-C	619.381	0.059	0.150	-	-
1	C-B	573.963	0.139	0.139	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	3215.00	100.000
B	FLAT	✓	22.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	16.000	3199.000
	B	0.000	0.000	22.000
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.00	1.00
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.16	31.04	0.19	D	22.00	22.00	10.86	29.61	0.18	10.86	29.63
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	16.00	16.00	-	-	-	-	-
A-C	-	-	-	-	3199.00	3199.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	21.27	0.00	137.97	0.159	0.00	0.18	30.673	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	21.99	0.00	137.97	0.159	0.18	0.19	31.030	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	22.00	0.00	137.97	0.159	0.19	0.19	31.037	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	22.00	5.50	22.00	0.00	137.97	0.159	0.19	0.19	31.038	D
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	126.50	0.000	0.00	0.00	0.000	A
A-B	16.00	4.00	16.00	0.00	-	-	-	-	-	-
A-C	3199.00	799.75	3199.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.48	0.17	30.673	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.77	0.18	31.030	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.80	0.19	31.037	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.81	0.19	31.038	D	C
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: 22 A1023 Chelmsford Road - Alexander Lane Rev B.arc8
Path: J:\28085 - DR - Brentwood\Transport\Working Documents\Junction Analysis\PICADY
Report generation date: 25/01/2016 10:31:40

» (Default Analysis Set) - Baseline, AM
» (Default Analysis Set) - Baseline, PM
» (Default Analysis Set) - Option 1, AM
» (Default Analysis Set) - Option 1, PM
» (Default Analysis Set) - Option 2, AM
» (Default Analysis Set) - Option 2, PM
» (Default Analysis Set) - Option 3, AM
» (Default Analysis Set) - Option 3, PM
» (Default Analysis Set) - Option 4, AM
» (Default Analysis Set) - Option 4, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Baseline							
Stream B-AC	1.92	59.13	0.67	F	1.05	34.30	0.52	D
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.08	8.63	0.07	A	0.01	6.46	0.01	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 1							
Stream B-AC	37.19	678.43	1.18	F	2.48	63.25	0.72	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.10	8.91	0.09	A	0.09	7.25	0.08	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 2							
Stream B-AC	37.06	675.83	1.18	F	2.48	63.25	0.72	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.10	8.91	0.09	A	0.09	7.25	0.08	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 3							
Stream B-AC	48.46	909.91	1.26	F	2.91	74.76	0.76	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.10	9.17	0.09	A	0.10	7.40	0.09	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Option 4							
Stream B-AC	46.75	870.30	1.24	F	2.72	69.88	0.75	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.10	9.17	0.09	A	0.10	7.34	0.09	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Baseline, AM " model duration: 08:00 - 09:00
"D2 - Baseline, PM" model duration: 17:00 - 18:00
"D3 - Option 1, AM" model duration: 08:00 - 09:00
"D4 - Option 1, PM" model duration: 17:00 - 18:00
"D5 - Option 2, AM" model duration: 08:00 - 09:00
"D6 - Option 2, PM" model duration: 17:00 - 18:00
"D7 - Option 3, AM" model duration: 08:00 - 09:00
"D8 - Option 3, PM" model duration: 17:00 - 18:00
"D9 - Option 4, AM" model duration: 08:00 - 09:00
"D10 - Option 4, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 25/01/2016 10:31:36

File summary

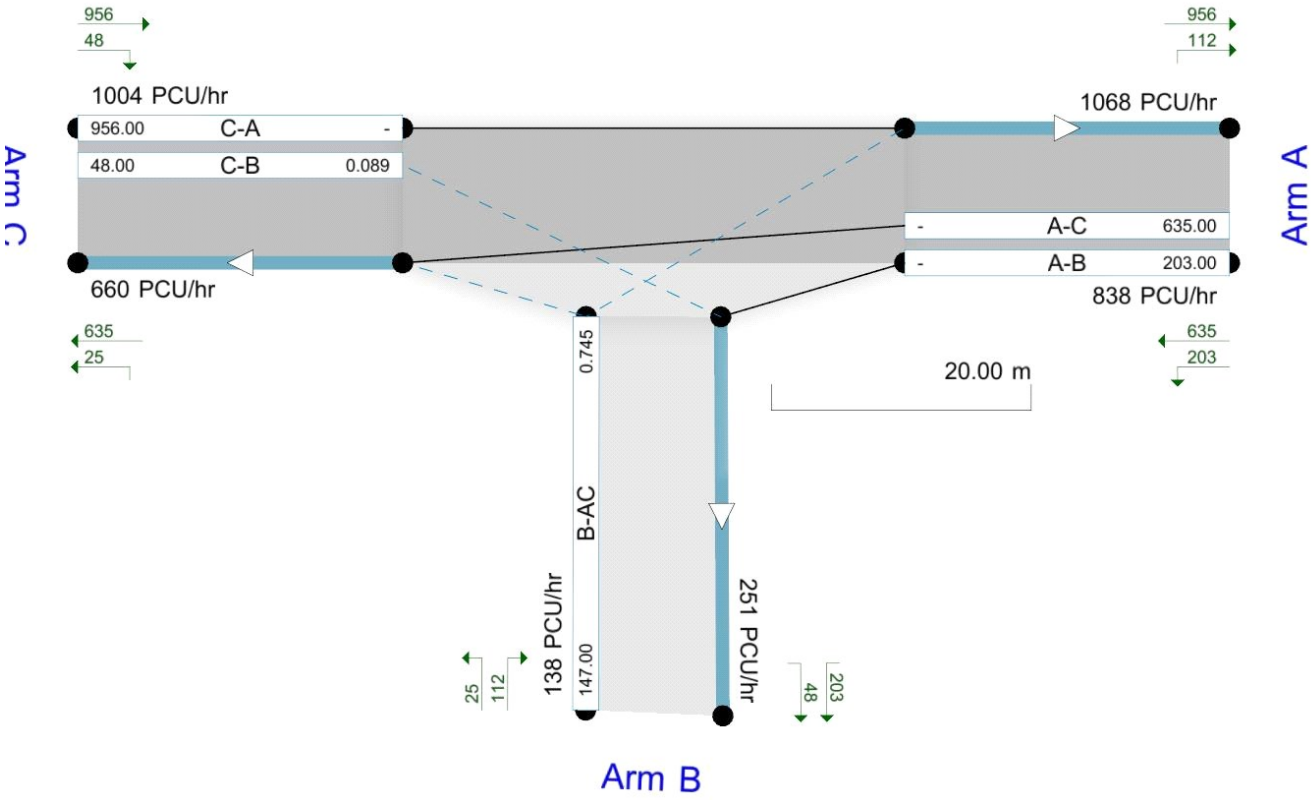
Title	A1023 Chelmsford Road - Alexander Lane
Location	Brentwood
Site Number	22
Date	05/08/2014
Version	
Status	For Information
Identifier	
Client	
Jobnumber	28085
Enumerator	proose
Description	

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			N/A	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	PCU	PCU	perHour	s	-Min	perMin



Showing modelled flow through junction (PCU/hr).
Streams (upstreams) show Total Demand (PCU/hr); Streams (downstreams) show RFC ()
Time Segment: (08:00-08:15)
Showing Analysis Set "A1 "; Demand Set "D1 - Baseline, AM "

The junction diagram reflects the last run of ARCADY.

(Default Analysis Set) - Baseline, 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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, AM	Baseline	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		48.57	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1127.00	100.000
B	FLAT	✓	121.00	100.000
C	FLAT	✓	692.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	298.000	829.000
	B	108.000	0.000	13.000
	C	660.000	32.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.89	0.00	0.11
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.67	59.13	1.92	F	121.00	121.00	104.03	51.58	1.73	104.64	51.89
C-A	-	-	-	-	660.00	660.00	-	-	-	-	-
C-B	0.07	8.63	0.08	A	32.00	32.00	4.53	8.50	0.08	4.53	8.50
A-B	-	-	-	-	298.00	298.00	-	-	-	-	-
A-C	-	-	-	-	829.00	829.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	114.19	0.00	181.29	0.667	0.00	1.70	49.764	E
C-A	660.00	165.00	660.00	0.00	-	-	-	-	-	-
C-B	32.00	8.00	31.70	0.00	448.96	0.071	0.00	0.08	8.621	A
A-B	298.00	74.50	298.00	0.00	-	-	-	-	-	-
A-C	829.00	207.25	829.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	120.46	0.00	181.19	0.668	1.70	1.84	58.092	F
C-A	660.00	165.00	660.00	0.00	-	-	-	-	-	-
C-B	32.00	8.00	32.00	0.00	448.96	0.071	0.08	0.08	8.633	A
A-B	298.00	74.50	298.00	0.00	-	-	-	-	-	-
A-C	829.00	207.25	829.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	120.79	0.00	181.19	0.668	1.84	1.89	58.830	F
C-A	660.00	165.00	660.00	0.00	-	-	-	-	-	-
C-B	32.00	8.00	32.00	0.00	448.96	0.071	0.08	0.08	8.633	A
A-B	298.00	74.50	298.00	0.00	-	-	-	-	-	-
A-C	829.00	207.25	829.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	121.00	30.25	120.89	0.00	181.19	0.668	1.89	1.92	59.127	F
C-A	660.00	165.00	660.00	0.00	-	-	-	-	-	-
C-B	32.00	8.00	32.00	0.00	448.96	0.071	0.08	0.08	8.633	A
A-B	298.00	74.50	298.00	0.00	-	-	-	-	-	-
A-C	829.00	207.25	829.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.75	1.38	49.764	E	D
C-A	-	-	-	-	-
C-B	1.10	0.07	8.621	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	26.73	1.78	58.092	F	E
C-A	-	-	-	-	-
C-B	1.14	0.08	8.633	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	27.99	1.87	58.830	F	E
C-A	-	-	-	-	-
C-B	1.15	0.08	8.633	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	28.56	1.90	59.127	F	E
C-A	-	-	-	-	-
C-B	1.15	0.08	8.633	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Baseline, PM

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
(Default Analysis Set)	N/A		✓				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	Relations
Baseline, PM	Baseline	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		32.45	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	752.00	100.000
B	FLAT	✓	112.00	100.000
C	FLAT	✓	921.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	142.000	610.000
	B	101.000	0.000	11.000
	C	913.000	8.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.19	0.81
	B	0.90	0.00	0.10
	C	0.99	0.01	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.52	34.30	1.05	D	112.00	112.00	59.46	31.85	0.99	59.61	31.94
C-A	-	-	-	-	913.00	913.00	-	-	-	-	-
C-B	0.01	6.46	0.01	A	8.00	8.00	0.85	6.40	0.01	0.85	6.40
A-B	-	-	-	-	142.00	142.00	-	-	-	-	-
A-C	-	-	-	-	610.00	610.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	112.00	28.00	108.03	0.00	216.78	0.517	0.00	0.99	32.091	D
C-A	913.00	228.25	913.00	0.00	-	-	-	-	-	-
C-B	8.00	2.00	7.94	0.00	564.76	0.014	0.00	0.01	6.465	A
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	112.00	28.00	111.86	0.00	216.76	0.517	0.99	1.03	34.196	D
C-A	913.00	228.25	913.00	0.00	-	-	-	-	-	-
C-B	8.00	2.00	8.00	0.00	564.76	0.014	0.01	0.01	6.465	A
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	112.00	28.00	111.95	0.00	216.76	0.517	1.03	1.04	34.275	D
C-A	913.00	228.25	913.00	0.00	-	-	-	-	-	-
C-B	8.00	2.00	8.00	0.00	564.76	0.014	0.01	0.01	6.465	A
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	112.00	28.00	111.97	0.00	216.76	0.517	1.04	1.05	34.304	D
C-A	913.00	228.25	913.00	0.00	-	-	-	-	-	-
C-B	8.00	2.00	8.00	0.00	564.76	0.014	0.01	0.01	6.465	A
A-B	142.00	35.50	142.00	0.00	-	-	-	-	-	-
A-C	610.00	152.50	610.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	13.00	0.87	32.091	D	C
C-A	-	-	-	-	-
C-B	0.21	0.01	6.465	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.23	1.02	34.196	D	C
C-A	-	-	-	-	-
C-B	0.21	0.01	6.465	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.55	1.04	34.275	D	C
C-A	-	-	-	-	-
C-B	0.22	0.01	6.465	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.68	1.05	34.304	D	C
C-A	-	-	-	-	-
C-B	0.22	0.01	6.465	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, AM	Option 1	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		576.03	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1147.00	100.000
B	FLAT	✓	216.00	100.000
C	FLAT	✓	716.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	307.000	840.000
	B	173.000	0.000	43.000
	C	677.000	39.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.80	0.00	0.20
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.18	678.43	37.19	F	216.00	216.00	1208.20	335.61	20.14	1434.17	398.38
C-A	-	-	-	-	677.00	677.00	-	-	-	-	-
C-B	0.09	8.91	0.10	A	39.00	39.00	5.70	8.77	0.10	5.70	8.77
A-B	-	-	-	-	307.00	307.00	-	-	-	-	-
A-C	-	-	-	-	840.00	840.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	169.24	0.00	183.72	1.176	0.00	11.69	155.414	F
C-A	677.00	169.25	677.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	38.62	0.00	442.79	0.088	0.00	0.10	8.899	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	180.94	0.00	183.60	1.176	11.69	20.45	353.209	F
C-A	677.00	169.25	677.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	182.28	0.00	183.60	1.176	20.45	28.89	517.169	F
C-A	677.00	169.25	677.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	182.79	0.00	183.60	1.176	28.89	37.19	678.431	F
C-A	677.00	169.25	677.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	100.48	6.70	155.414	F	F
C-A	-	-	-	-	-
C-B	1.38	0.09	8.899	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	241.78	16.12	353.209	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	370.29	24.69	517.169	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	495.66	33.04	678.431	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 1, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 1, PM	Option 1	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		50.35	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	831.00	100.000
B	FLAT	✓	147.00	100.000
C	FLAT	✓	972.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	206.000	625.000
	B	122.000	0.000	25.000
	C	928.000	44.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.25	0.75
	B	0.83	0.00	0.17
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.72	63.25	2.48	F	147.00	147.00	132.41	54.04	2.21	133.31	54.41
C-A	-	-	-	-	928.00	928.00	-	-	-	-	-
C-B	0.08	7.25	0.09	A	44.00	44.00	5.25	7.16	0.09	5.25	7.16
A-B	-	-	-	-	206.00	206.00	-	-	-	-	-
A-C	-	-	-	-	625.00	625.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	138.42	0.00	202.97	0.724	0.00	2.14	50.789	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	43.65	0.00	540.36	0.081	0.00	0.09	7.243	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.18	0.00	202.86	0.725	2.14	2.35	61.577	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.67	0.00	202.86	0.725	2.35	2.43	62.761	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.82	0.00	202.86	0.725	2.43	2.48	63.250	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	25.66	1.71	50.789	F	D
C-A	-	-	-	-	-
C-B	1.27	0.08	7.243	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	33.98	2.27	61.577	F	E
C-A	-	-	-	-	-
C-B	1.32	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	35.93	2.40	62.761	F	E
C-A	-	-	-	-	-
C-B	1.32	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.85	2.46	63.250	F	E
C-A	-	-	-	-	-
C-B	1.33	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, AM	Option 2	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		573.83	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1147.00	100.000
B	FLAT	✓	216.00	100.000
C	FLAT	✓	715.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	307.000	840.000
	B	173.000	0.000	43.000
	C	676.000	39.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.27	0.73
	B	0.80	0.00	0.20
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.18	675.83	37.06	F	216.00	216.00	1204.69	334.64	20.08	1428.98	396.94
C-A	-	-	-	-	676.00	676.00	-	-	-	-	-
C-B	0.09	8.91	0.10	A	39.00	39.00	5.70	8.77	0.10	5.70	8.77
A-B	-	-	-	-	307.00	307.00	-	-	-	-	-
A-C	-	-	-	-	840.00	840.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	169.35	0.00	183.87	1.175	0.00	11.66	155.068	F
C-A	676.00	169.00	676.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	38.62	0.00	442.79	0.088	0.00	0.10	8.899	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	181.06	0.00	183.74	1.176	11.66	20.40	352.152	F
C-A	676.00	169.00	676.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	182.41	0.00	183.74	1.176	20.40	28.80	515.356	F
C-A	676.00	169.00	676.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.00	54.00	182.93	0.00	183.74	1.176	28.80	37.06	675.831	F
C-A	676.00	169.00	676.00	0.00	-	-	-	-	-	-
C-B	39.00	9.75	39.00	0.00	442.79	0.088	0.10	0.10	8.915	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	840.00	210.00	840.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	100.30	6.69	155.068	F	F
C-A	-	-	-	-	-
C-B	1.38	0.09	8.899	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	241.16	16.08	352.152	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	369.18	24.61	515.356	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	494.05	32.94	675.831	F	F
C-A	-	-	-	-	-
C-B	1.44	0.10	8.915	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 2, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 2, PM	Option 2	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		50.35	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	831.00	100.000
B	FLAT	✓	147.00	100.000
C	FLAT	✓	972.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	206.000	625.000
	B	122.000	0.000	25.000
	C	928.000	44.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.25	0.75
	B	0.83	0.00	0.17
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.72	63.25	2.48	F	147.00	147.00	132.41	54.04	2.21	133.31	54.41
C-A	-	-	-	-	928.00	928.00	-	-	-	-	-
C-B	0.08	7.25	0.09	A	44.00	44.00	5.25	7.16	0.09	5.25	7.16
A-B	-	-	-	-	206.00	206.00	-	-	-	-	-
A-C	-	-	-	-	625.00	625.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	138.42	0.00	202.97	0.724	0.00	2.14	50.789	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	43.65	0.00	540.36	0.081	0.00	0.09	7.243	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.18	0.00	202.86	0.725	2.14	2.35	61.577	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.67	0.00	202.86	0.725	2.35	2.43	62.761	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.82	0.00	202.86	0.725	2.43	2.48	63.250	F
C-A	928.00	232.00	928.00	0.00	-	-	-	-	-	-
C-B	44.00	11.00	44.00	0.00	540.36	0.081	0.09	0.09	7.251	A
A-B	206.00	51.50	206.00	0.00	-	-	-	-	-	-
A-C	625.00	156.25	625.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	25.66	1.71	50.789	F	D
C-A	-	-	-	-	-
C-B	1.27	0.08	7.243	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	33.98	2.27	61.577	F	E
C-A	-	-	-	-	-
C-B	1.32	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	35.93	2.40	62.761	F	E
C-A	-	-	-	-	-
C-B	1.32	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.85	2.46	63.250	F	E
C-A	-	-	-	-	-
C-B	1.33	0.09	7.251	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, AM	Option 3	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		771.33	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1180.00	100.000
B	FLAT	✓	220.00	100.000
C	FLAT	✓	735.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	307.000	873.000
	B	172.000	0.000	48.000
	C	695.000	40.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.78	0.00	0.22
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.26	909.91	48.46	F	220.00	220.00	1530.15	417.31	25.50	1932.69	527.10
C-A	-	-	-	-	695.00	695.00	-	-	-	-	-
C-B	0.09	9.17	0.10	A	40.00	40.00	6.01	9.02	0.10	6.01	9.02
A-B	-	-	-	-	307.00	307.00	-	-	-	-	-
A-C	-	-	-	-	873.00	873.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	163.58	0.00	175.18	1.256	0.00	14.10	185.556	F
C-A	695.00	173.75	695.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	39.60	0.00	432.60	0.092	0.00	0.10	9.151	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	173.53	0.00	175.05	1.257	14.10	25.72	446.899	F
C-A	695.00	173.75	695.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	174.37	0.00	175.05	1.257	25.72	37.13	678.775	F
C-A	695.00	173.75	695.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	174.66	0.00	175.05	1.257	37.13	48.46	909.910	F
C-A	695.00	173.75	695.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	117.43	7.83	185.556	F	F
C-A	-	-	-	-	-
C-B	1.45	0.10	9.151	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	299.17	19.94	446.899	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	471.53	31.44	678.775	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	642.02	42.80	909.910	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 3, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 3, PM	Option 3	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		58.18	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	851.00	100.000
B	FLAT	✓	147.00	100.000
C	FLAT	✓	1007.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	203.000	648.000
	B	120.000	0.000	27.000
	C	959.000	48.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.24	0.76
	B	0.82	0.00	0.18
	C	0.95	0.05	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.76	74.76	2.91	F	147.00	147.00	152.16	62.11	2.54	153.47	62.64
C-A	-	-	-	-	959.00	959.00	-	-	-	-	-
C-B	0.09	7.40	0.10	A	48.00	48.00	5.84	7.30	0.10	5.84	7.30
A-B	-	-	-	-	203.00	203.00	-	-	-	-	-
A-C	-	-	-	-	648.00	648.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	137.28	0.00	193.81	0.758	0.00	2.43	56.871	F
C-A	959.00	239.75	959.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	47.61	0.00	534.19	0.090	0.00	0.10	7.392	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	648.00	162.00	648.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	145.86	0.00	193.68	0.759	2.43	2.72	71.790	F
C-A	959.00	239.75	959.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	534.19	0.090	0.10	0.10	7.403	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	648.00	162.00	648.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.51	0.00	193.68	0.759	2.72	2.84	73.855	F
C-A	959.00	239.75	959.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	534.19	0.090	0.10	0.10	7.403	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	648.00	162.00	648.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.73	0.00	193.68	0.759	2.84	2.91	74.759	F
C-A	959.00	239.75	959.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	534.19	0.090	0.10	0.10	7.403	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	648.00	162.00	648.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	28.36	1.89	56.871	F	E
C-A	-	-	-	-	-
C-B	1.42	0.09	7.392	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	38.95	2.60	71.790	F	E
C-A	-	-	-	-	-
C-B	1.47	0.10	7.403	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	41.74	2.78	73.855	F	E
C-A	-	-	-	-	-
C-B	1.48	0.10	7.403	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	43.11	2.87	74.759	F	E
C-A	-	-	-	-	-
C-B	1.48	0.10	7.403	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, 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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, AM	Option 4	AM		FLAT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		737.82	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1180.00	100.000
B	FLAT	✓	220.00	100.000
C	FLAT	✓	722.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	307.000	873.000
	B	172.000	0.000	48.000
	C	682.000	40.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.26	0.74
	B	0.78	0.00	0.22
	C	0.94	0.06	0.00

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	1.24	870.30	46.75	F	220.00	220.00	1481.10	403.94	24.68	1851.62	504.99
C-A	-	-	-	-	682.00	682.00	-	-	-	-	-
C-B	0.09	9.17	0.10	A	40.00	40.00	6.01	9.02	0.10	6.01	9.02
A-B	-	-	-	-	307.00	307.00	-	-	-	-	-
A-C	-	-	-	-	873.00	873.00	-	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	165.05	0.00	177.07	1.242	0.00	13.74	180.242	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	39.60	0.00	432.60	0.092	0.00	0.10	9.151	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	175.27	0.00	176.93	1.243	13.74	24.92	430.652	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	176.18	0.00	176.93	1.243	24.92	35.87	650.966	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	220.00	55.00	176.50	0.00	176.93	1.243	35.87	46.75	870.297	F
C-A	682.00	170.50	682.00	0.00	-	-	-	-	-	-
C-B	40.00	10.00	40.00	0.00	432.60	0.092	0.10	0.10	9.169	A
A-B	307.00	76.75	307.00	0.00	-	-	-	-	-	-
A-C	873.00	218.25	873.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	114.89	7.66	180.242	F	F
C-A	-	-	-	-	-
C-B	1.45	0.10	9.151	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	290.42	19.36	430.652	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	456.08	30.41	650.966	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	619.71	41.31	870.297	F	F
C-A	-	-	-	-	-
C-B	1.52	0.10	9.169	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Option 4, PM

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
(Default Analysis Set)	N/A		✓				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	Relationship
Option 4, PM	Option 4	PM		FLAT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	A1023 Chelmsford Rd - Alexander Ln	T-Junction	Two-way	A,B,C		54.49	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Chelmsford Road E		Major
B	B	Alexander Lane		Minor
C	C	Chelmsford Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.20	250.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	2.80										27	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.833	0.088	0.223	0.140	0.318
1	B-C	620.697	0.095	0.240	-	-
1	C-B	796.964	0.309	0.309	-	-

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

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

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

Traffic 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 (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	838.00	100.000
B	FLAT	✓	147.00	100.000
C	FLAT	✓	1004.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	203.000	635.000
	B	120.000	0.000	27.000
	C	956.000	48.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.24	0.76
	B	0.82	0.00	0.18
	C	0.95	0.05	0.00

Vehicle Mix

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

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.75	69.88	2.72	F	147.00	147.00	143.90	58.74	2.40	145.03	59.20
C-A	-	-	-	-	956.00	956.00	-	-	-	-	-
C-B	0.09	7.34	0.10	A	48.00	48.00	5.80	7.24	0.10	5.80	7.24
A-B	-	-	-	-	203.00	203.00	-	-	-	-	-
A-C	-	-	-	-	635.00	635.00	-	-	-	-	-

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	137.75	0.00	197.35	0.745	0.00	2.31	54.380	F
C-A	956.00	239.00	956.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	47.61	0.00	538.20	0.089	0.00	0.10	7.327	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	635.00	158.75	635.00	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.00	0.00	197.23	0.745	2.31	2.56	67.516	F
C-A	956.00	239.00	956.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	538.20	0.089	0.10	0.10	7.342	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	635.00	158.75	635.00	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.58	0.00	197.22	0.745	2.56	2.67	69.170	F
C-A	956.00	239.00	956.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	538.20	0.089	0.10	0.10	7.342	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	635.00	158.75	635.00	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	147.00	36.75	146.77	0.00	197.22	0.745	2.67	2.72	69.879	F
C-A	956.00	239.00	956.00	0.00	-	-	-	-	-	-
C-B	48.00	12.00	48.00	0.00	538.20	0.089	0.10	0.10	7.342	A
A-B	203.00	50.75	203.00	0.00	-	-	-	-	-	-
A-C	635.00	158.75	635.00	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	27.26	1.82	54.380	F	D
C-A	-	-	-	-	-
C-B	1.41	0.09	7.327	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.88	2.46	67.516	F	E
C-A	-	-	-	-	-
C-B	1.46	0.10	7.342	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	39.30	2.62	69.170	F	E
C-A	-	-	-	-	-
C-B	1.46	0.10	7.342	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	40.47	2.70	69.879	F	E
C-A	-	-	-	-	-
C-B	1.47	0.10	7.342	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

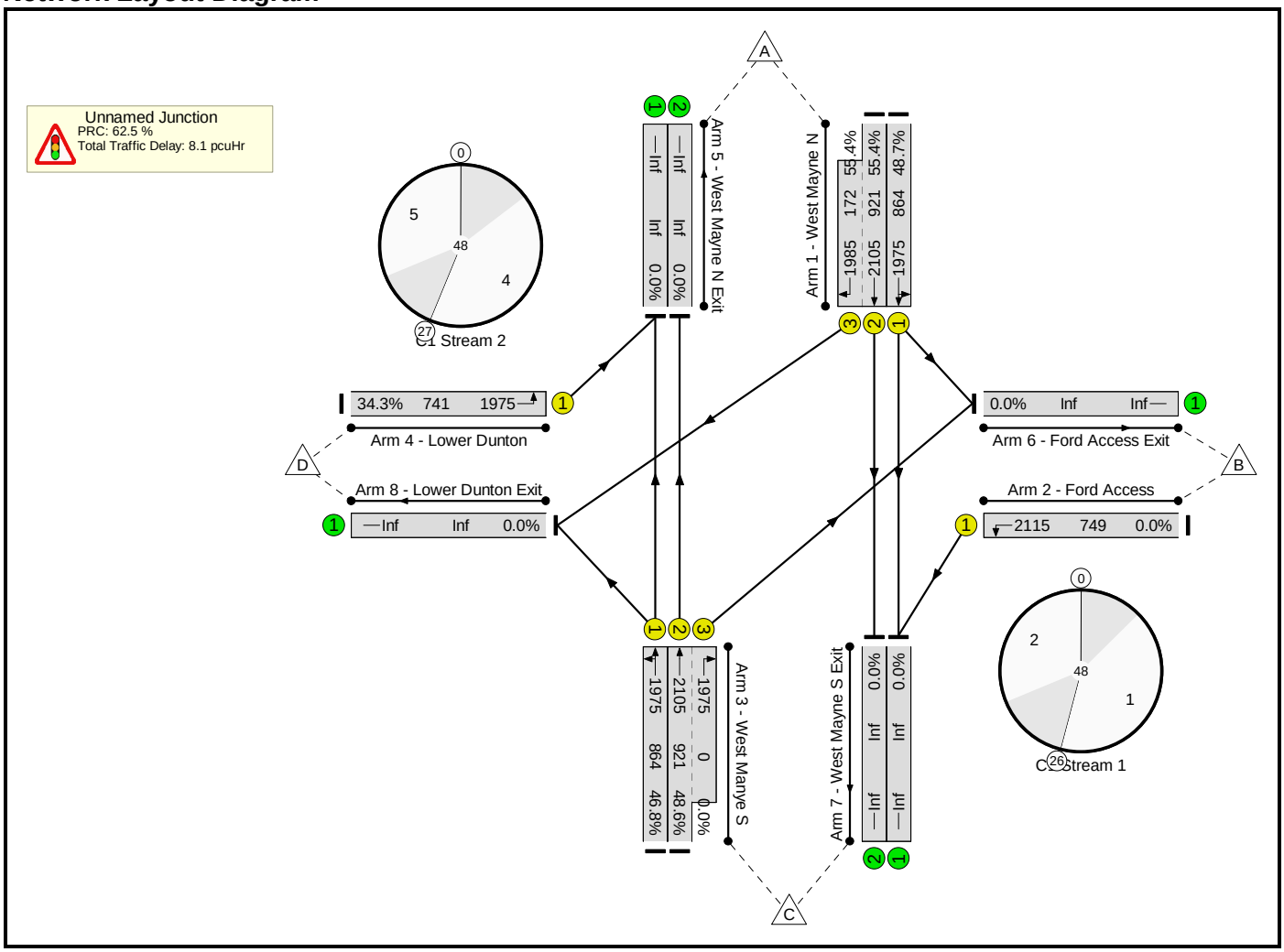
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	23.B148 West Mayne - Lower Dunton Road Rev B.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 3: 'AM Baseline' (FG3: 'AM Baseline', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

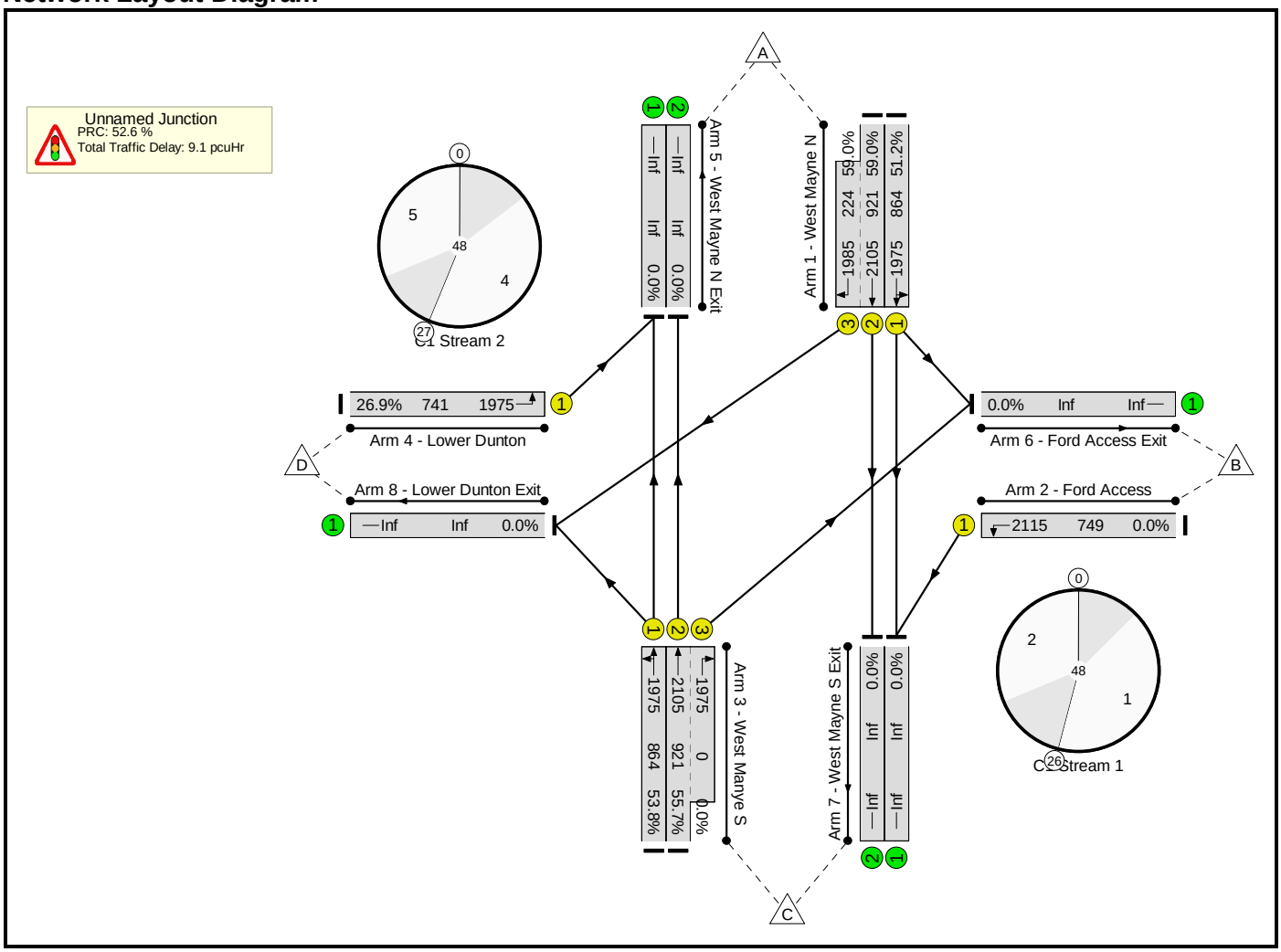
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**55.4%**	**0**	**0**	**0**	**8.1**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**55.4%**	**0**	**0**	**0**	**8.1**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	421	1975	864	48.7%	-	-	-	1.6	13.7	4.5
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	605	2105:1985	921+172	55.4 : 55.4%	-	-	-	2.3 (1.9+0.4)	13.8 (13.7:14.2)	5.6
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	404	1975	864	46.8%	-	-	-	1.5	13.5	4.1
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	448	2105:1975	921+0	48.6 : 0.0%	-	-	-	1.7 (1.7+0.0)	13.5 (13.5:0.0)	4.7
4/1	Lower Dunton Left	U	E		1	17	-	254	1975	741	34.3%	-	-	-	1.0	14.5	2.7

C1 Stream: 1 PRC for Signalled Lanes (%): 62.5 Total Delay for Signalled Lanes (pcuHr): 3.92 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 85.0 Total Delay for Signalled Lanes (pcuHr): 4.21 Cycle Time (s): 48
PRC Over All Lanes (%): 62.5 Total Delay Over All Lanes(pcuHr): 8.13

Basic Results Summary

Scenario 4: 'PM Baseline' (FG4: 'PM Baseline', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

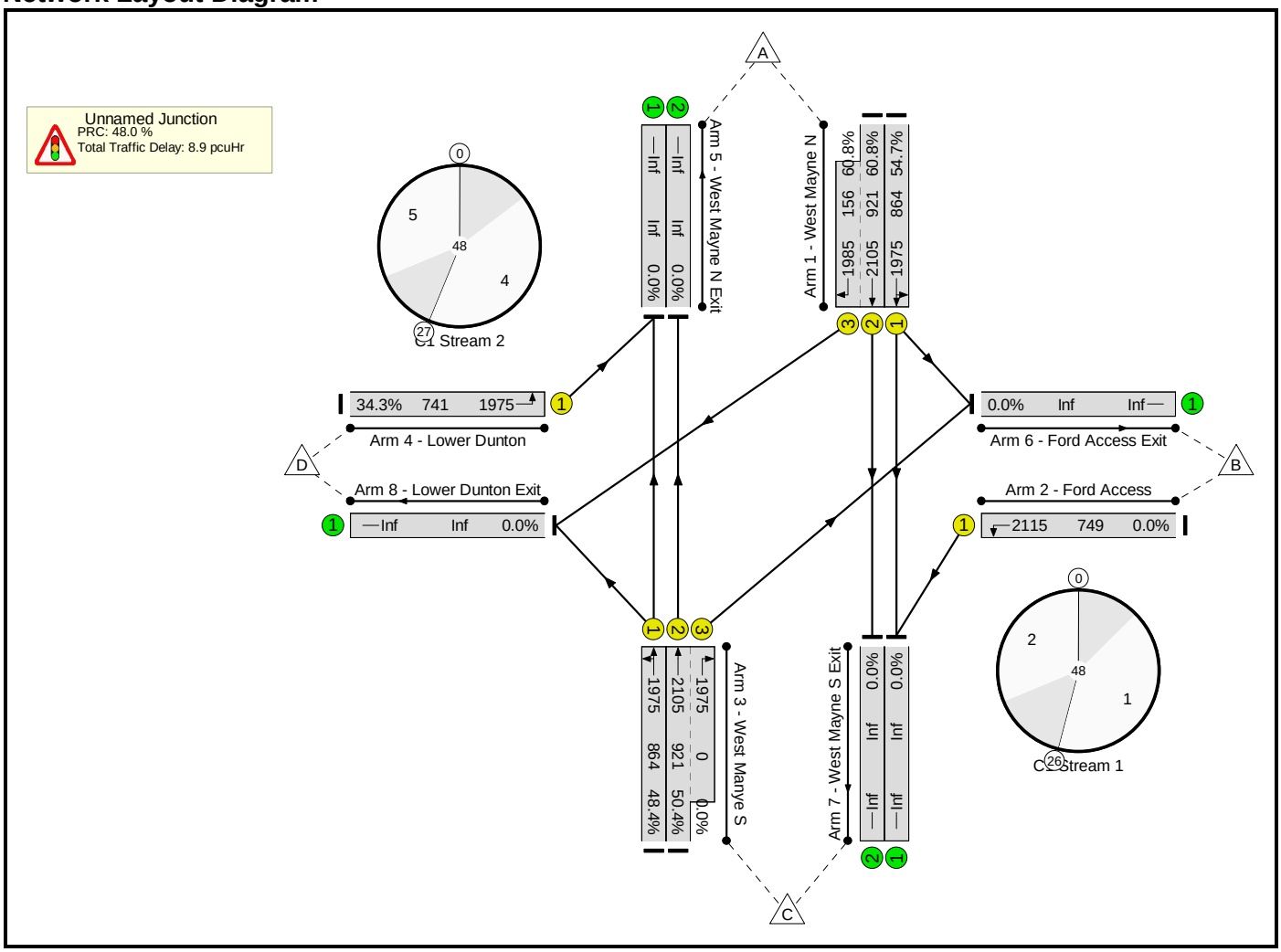
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.0%**	**0**	**0**	**0**	**9.1**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.0%**	**0**	**0**	**0**	**9.1**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	442	1975	864	51.2%	-	-	-	1.7	14.0	4.7
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	675	2105:1985	921+224	59.0 : 59.0%	-	-	-	2.7 (2.1+0.5)	14.2 (14.1:14.6)	6.1
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	465	1975	864	53.8%	-	-	-	1.9	14.4	5.1
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	513	2105:1975	921+0	55.7 : 0.0%	-	-	-	2.1 (2.1+0.0)	14.4 (14.4:0.0)	5.6
4/1	Lower Dunton Left	U	E		1	17	-	199	1975	741	26.9%	-	-	-	0.8	13.8	2.0

C1 Stream: 1 PRC for Signalled Lanes (%): 52.6 Total Delay for Signalled Lanes (pcuHr): 4.38 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 61.6 Total Delay for Signalled Lanes (pcuHr): 4.68 Cycle Time (s): 48
PRC Over All Lanes (%): 52.6 Total Delay Over All Lanes(pcuHr): 9.06

Basic Results Summary

Scenario 5: 'AM Option 1' (FG5: 'AM Option 1', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

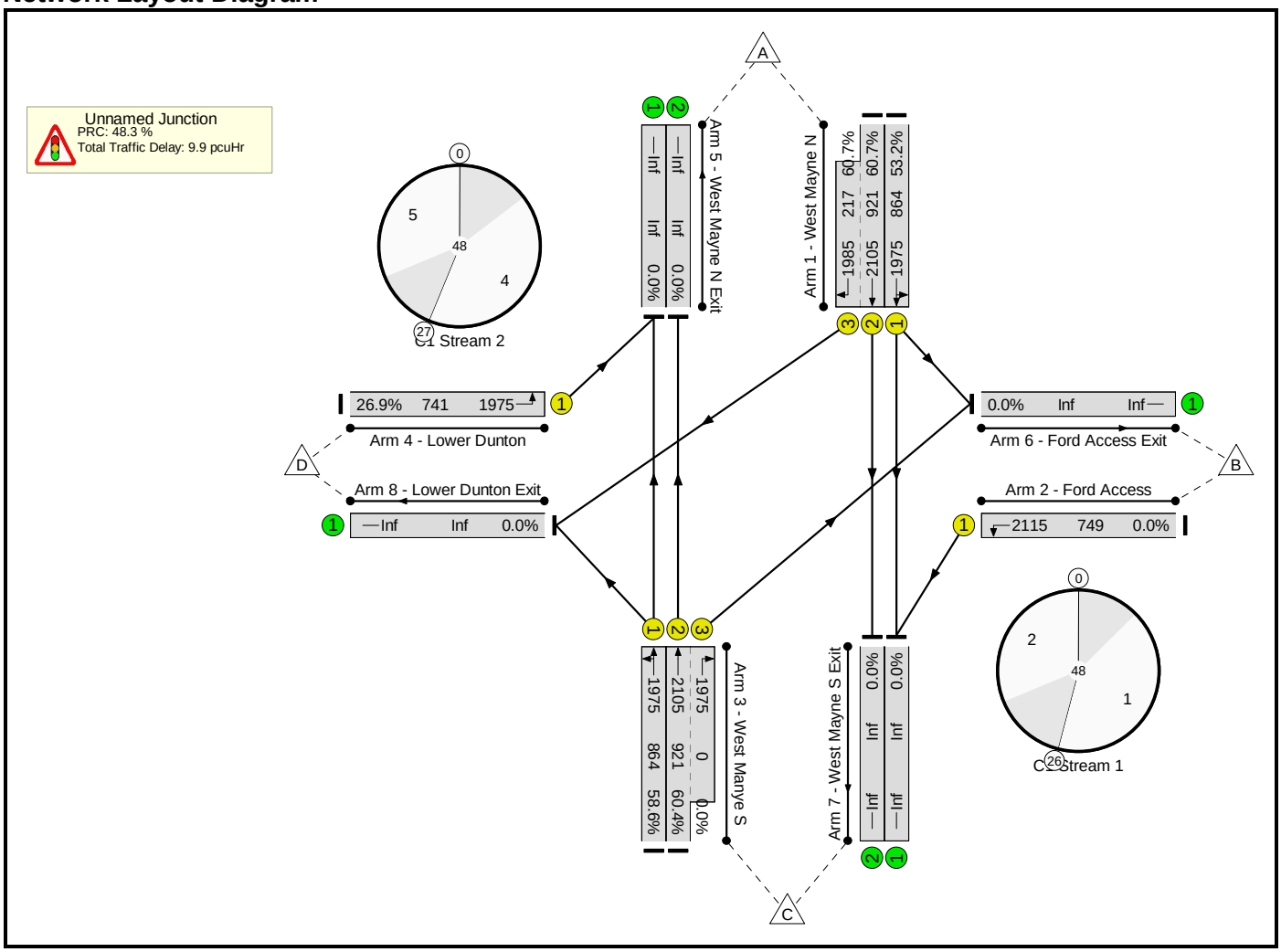
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.8%**	**0**	**0**	**0**	**8.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.8%**	**0**	**0**	**0**	**8.9**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	473	1975	864	54.7%	-	-	-	1.9	14.6	5.2
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	655	2105:1985	921+156	60.8 : 60.8%	-	-	-	2.7 (2.3+0.4)	14.6 (14.6:14.8)	6.4
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	418	1975	864	48.4%	-	-	-	1.6	13.7	4.4
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	464	2105:1975	921+0	50.4 : 0.0%	-	-	-	1.8 (1.8+0.0)	13.7 (13.7:0.0)	4.9
4/1	Lower Dunton Left	U	E		1	17	-	254	1975	741	34.3%	-	-	-	1.0	14.5	2.7

C1 Stream: 1 PRC for Signalled Lanes (%): 48.0 Total Delay for Signalled Lanes (pcuHr): 4.58 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 78.6 Total Delay for Signalled Lanes (pcuHr): 4.37 Cycle Time (s): 48
PRC Over All Lanes (%): 48.0 Total Delay Over All Lanes(pcuHr): 8.95

Basic Results Summary

Scenario 6: 'PM Option 1' (FG6: 'PM Option 1', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

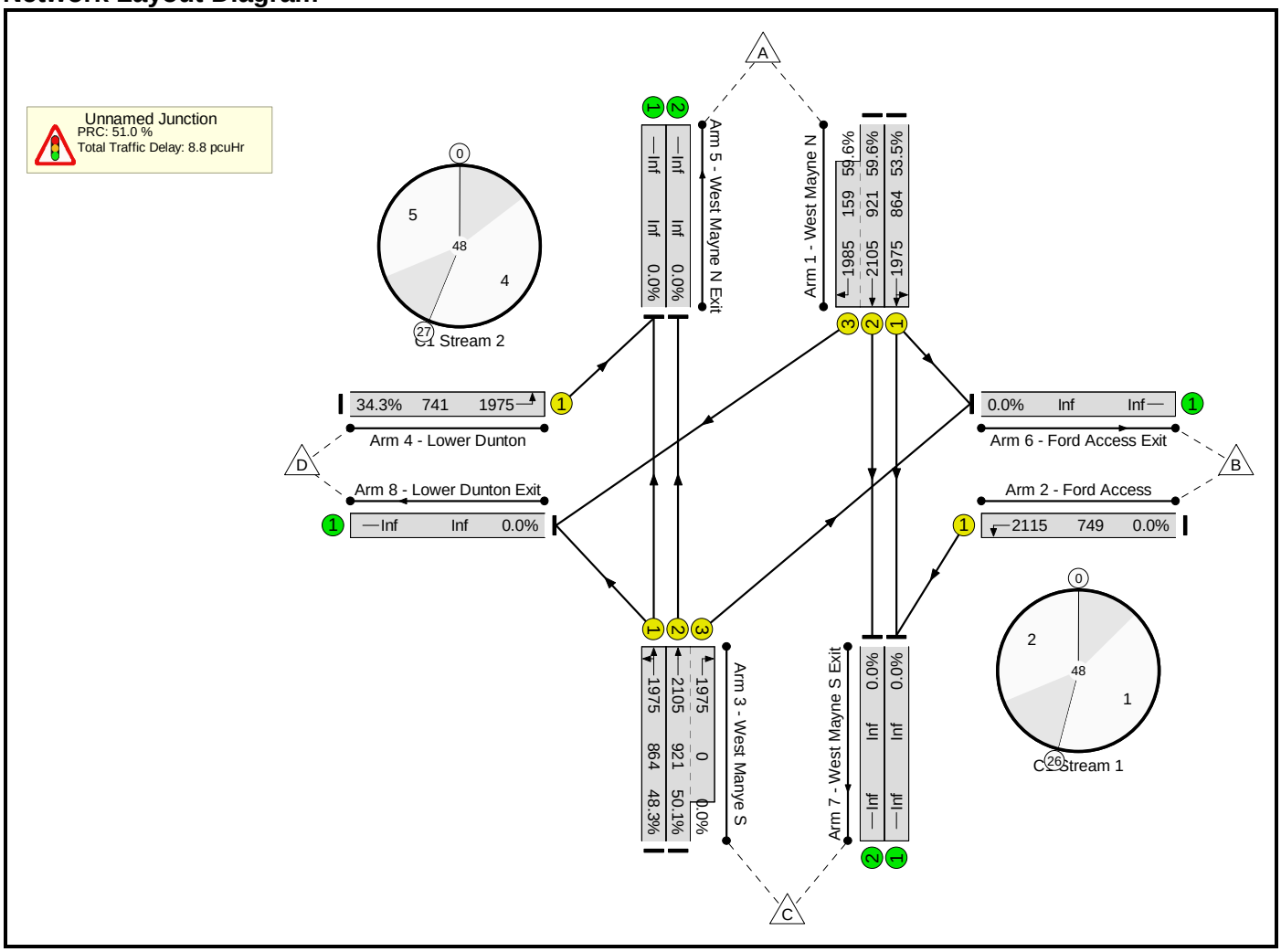
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.7%**	**0**	**0**	**0**	**9.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.7%**	**0**	**0**	**0**	**9.9**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	460	1975	864	53.2%	-	-	-	1.8	14.3	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	691	2105:1985	921+217	60.7 : 60.7%	-	-	-	2.8 (2.2+0.5)	14.4 (14.4:14.8)	6.4
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	506	1975	864	58.6%	-	-	-	2.1	15.2	5.8
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	556	2105:1975	921+0	60.4 : 0.0%	-	-	-	2.4 (2.4+0.0)	15.2 (15.2:0.0)	6.3
4/1	Lower Dunton Left	U	E		1	17	-	199	1975	741	26.9%	-	-	-	0.8	13.8	2.0

C1 Stream: 1 PRC for Signalled Lanes (%): 48.3 Total Delay for Signalled Lanes (pcuHr): 4.60 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 49.1 Total Delay for Signalled Lanes (pcuHr): 5.25 Cycle Time (s): 48
PRC Over All Lanes (%): 48.3 Total Delay Over All Lanes(pcuHr): 9.86

Basic Results Summary

Scenario 7: 'AM Option 2' (FG7: 'AM Option 2', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

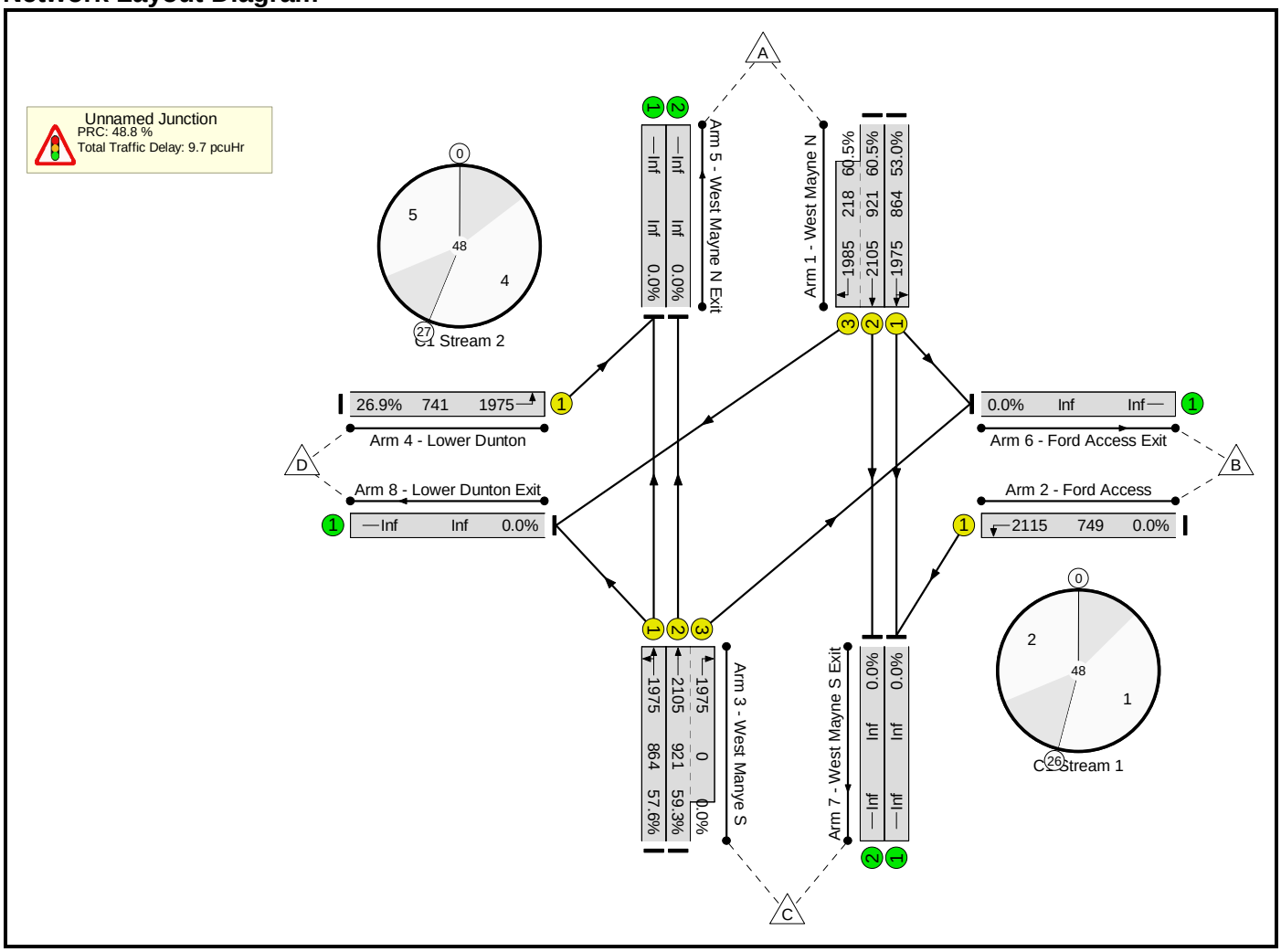
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.6%**	**0**	**0**	**0**	**8.8**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.6%**	**0**	**0**	**0**	**8.8**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	462	1975	864	53.5%	-	-	-	1.8	14.4	5.1
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	644	2105:1985	921+159	59.6 : 59.6%	-	-	-	2.6 (2.2+0.4)	14.4 (14.4:14.7)	6.2
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	417	1975	864	48.3%	-	-	-	1.6	13.7	4.4
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	461	2105:1975	921+0	50.1 : 0.0%	-	-	-	1.7 (1.7+0.0)	13.6 (13.6:0.0)	4.9
4/1	Lower Dunton Left	U	E		1	17	-	254	1975	741	34.3%	-	-	-	1.0	14.5	2.7

C1 Stream: 1 PRC for Signalled Lanes (%): 51.0 Total Delay for Signalled Lanes (pcuHr): 4.43 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 79.8 Total Delay for Signalled Lanes (pcuHr): 4.35 Cycle Time (s): 48
PRC Over All Lanes (%): 51.0 Total Delay Over All Lanes(pcuHr): 8.78

Basic Results Summary

Scenario 8: 'PM Option 2' (FG8: 'PM Option 2', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

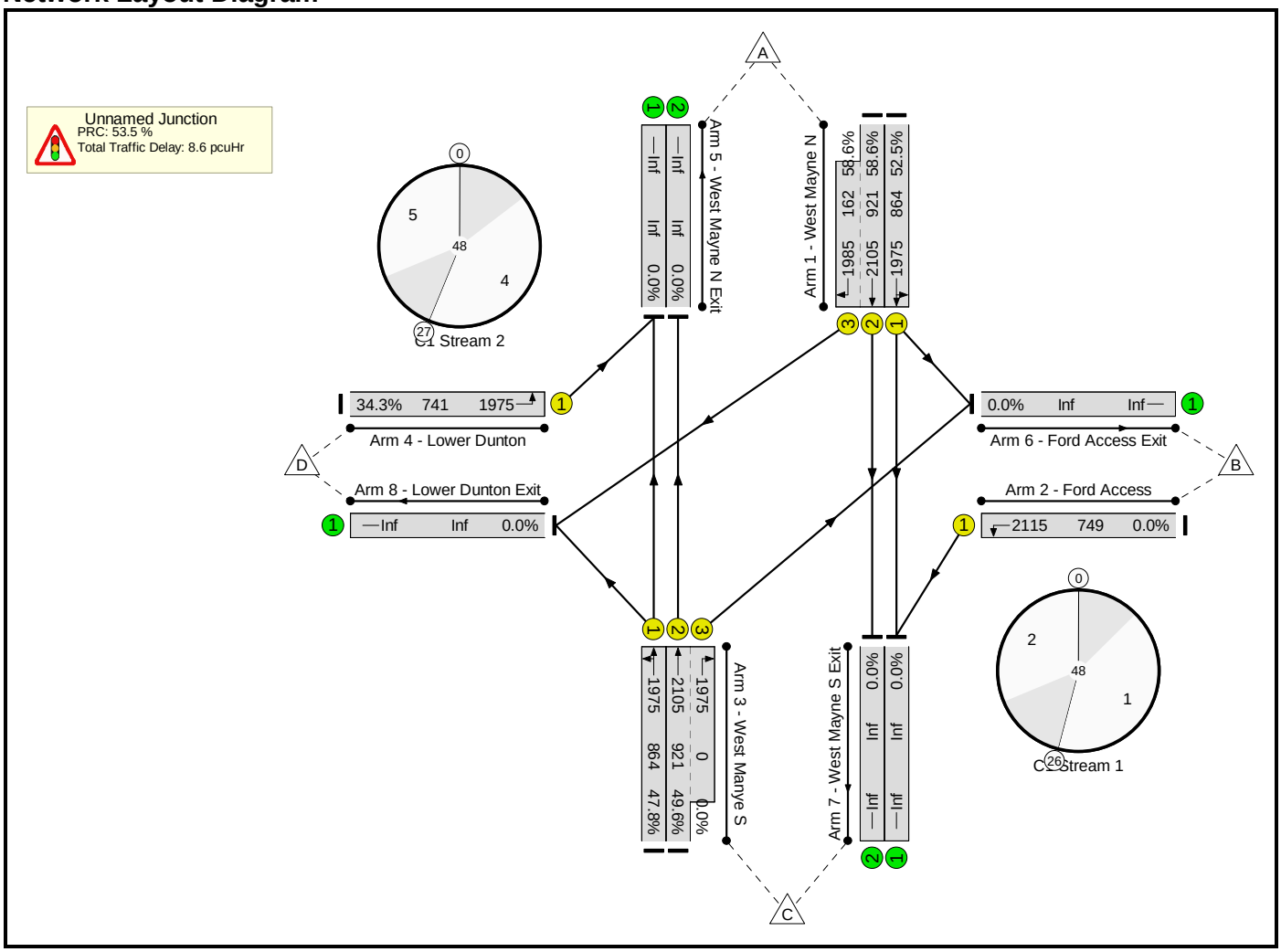
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.5%**	**0**	**0**	**0**	**9.7**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.5%**	**0**	**0**	**0**	**9.7**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	458	1975	864	53.0%	-	-	-	1.8	14.3	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	689	2105:1985	921+218	60.5 : 60.5%	-	-	-	2.8 (2.2+0.5)	14.4 (14.3:14.7)	6.3
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	498	1975	864	57.6%	-	-	-	2.1	15.1	5.7
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	546	2105:1975	921+0	59.3 : 0.0%	-	-	-	2.3 (2.3+0.0)	15.0 (15.0:0.0)	6.2
4/1	Lower Dunton Left	U	E		1	17	-	199	1975	741	26.9%	-	-	-	0.8	13.8	2.0

C1	Stream: 1 PRC for Signalled Lanes (%):	48.8	Total Delay for Signalled Lanes (pcuHr):	4.58	Cycle Time (s):	48
C1	Stream: 2 PRC for Signalled Lanes (%):	51.8	Total Delay for Signalled Lanes (pcuHr):	5.13	Cycle Time (s):	48
	PRC Over All Lanes (%):	48.8	Total Delay Over All Lanes(pcuHr):	9.70		

Basic Results Summary

Scenario 9: 'AM Option 3' (FG9: 'AM Option 3', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

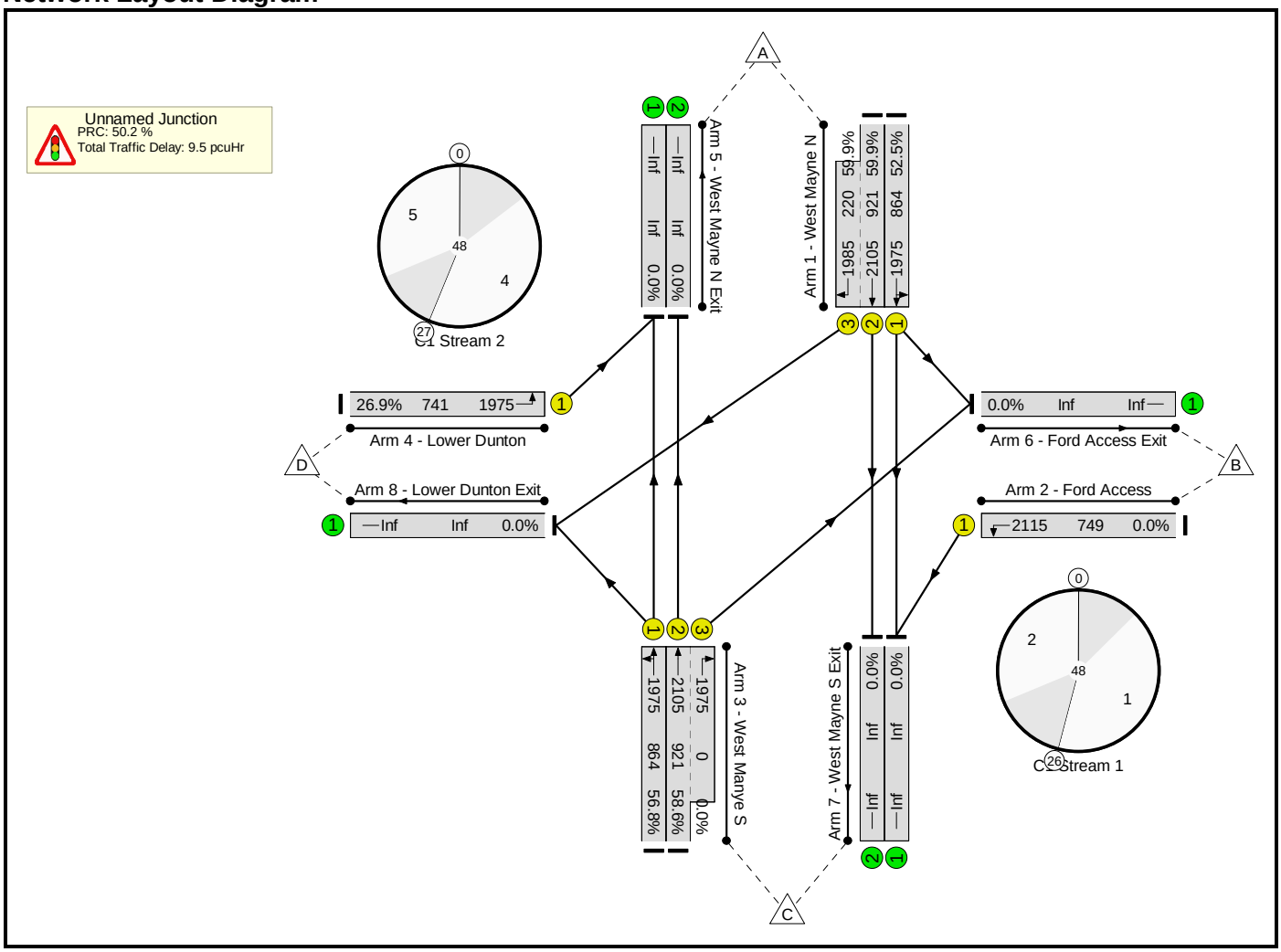
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**58.6%**	**0**	**0**	**0**	**8.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**58.6%**	**0**	**0**	**0**	**8.6**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	454	1975	864	52.5%	-	-	-	1.8	14.2	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	635	2105:1985	921+162	58.6 : 58.6%	-	-	-	2.5 (2.1+0.4)	14.3 (14.2:14.6)	6.1
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	413	1975	864	47.8%	-	-	-	1.6	13.6	4.4
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	457	2105:1975	921+0	49.6 : 0.0%	-	-	-	1.7 (1.7+0.0)	13.6 (13.6:0.0)	4.8
4/1	Lower Dunton Left	U	E		1	17	-	254	1975	741	34.3%	-	-	-	1.0	14.5	2.7

C1 Stream: 1 PRC for Signalled Lanes (%): 53.5 Total Delay for Signalled Lanes (pcuHr): 4.31 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 81.4 Total Delay for Signalled Lanes (pcuHr): 4.30 Cycle Time (s): 48
PRC Over All Lanes (%): 53.5 Total Delay Over All Lanes(pcuHr): 8.62

Basic Results Summary

Scenario 10: 'PM Option 3' (FG10: 'PM Option 3', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

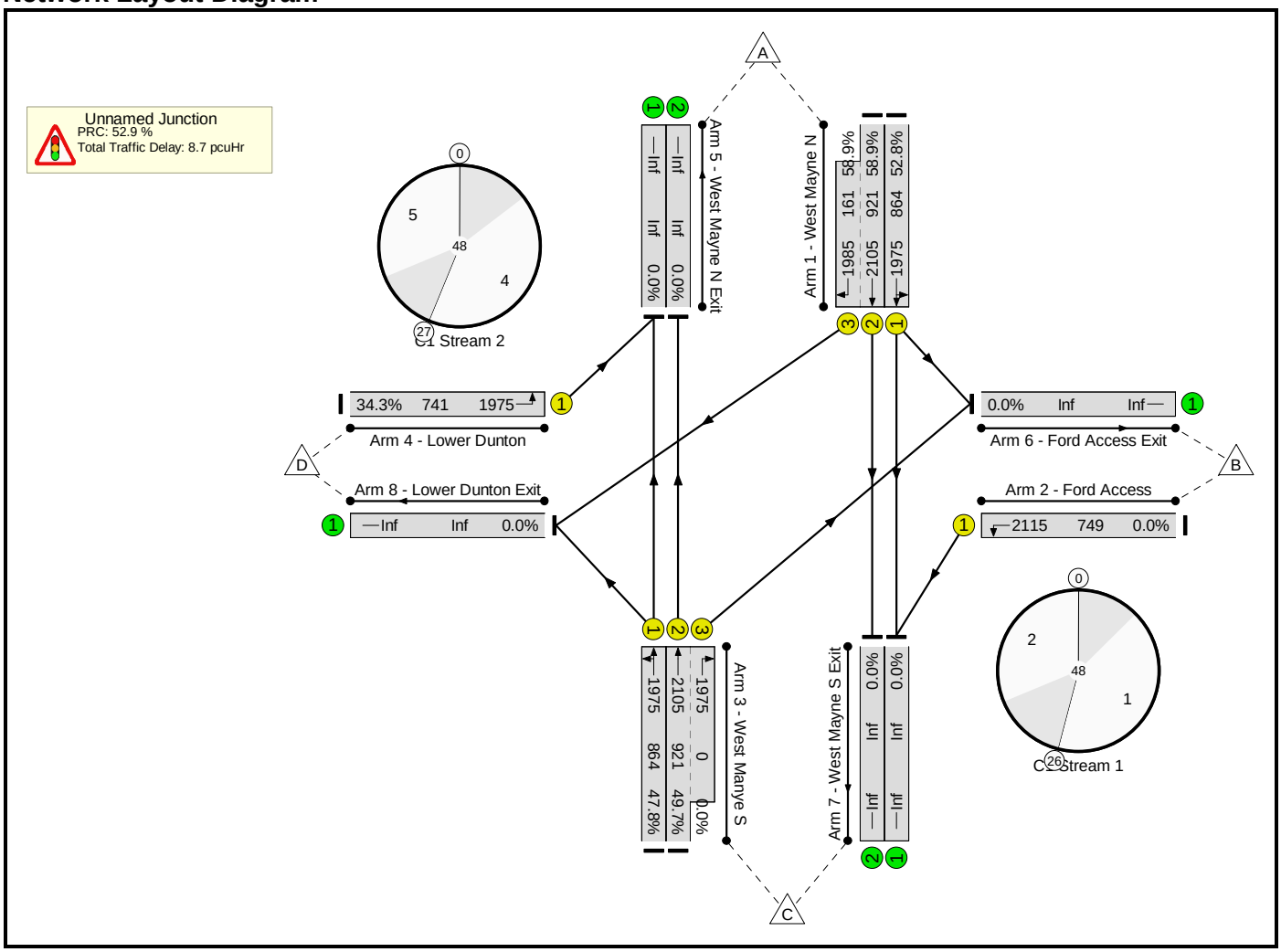
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.9%**	**0**	**0**	**0**	**9.5**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.9%**	**0**	**0**	**0**	**9.5**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	454	1975	864	52.5%	-	-	-	1.8	14.2	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	684	2105:1985	921+220	59.9 : 59.9%	-	-	-	2.7 (2.2+0.5)	14.3 (14.2:14.7)	6.3
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	491	1975	864	56.8%	-	-	-	2.0	14.9	5.4
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	540	2105:1975	921+0	58.6 : 0.0%	-	-	-	2.2 (2.2+0.0)	14.9 (14.9:0.0)	6.1
4/1	Lower Dunton Left	U	E		1	17	-	199	1975	741	26.9%	-	-	-	0.8	13.8	2.0

C1	Stream: 1 PRC for Signalled Lanes (%):	50.2	Total Delay for Signalled Lanes (pcuHr):	4.51	Cycle Time (s):	48
C1	Stream: 2 PRC for Signalled Lanes (%):	53.5	Total Delay for Signalled Lanes (pcuHr):	5.03	Cycle Time (s):	48
	PRC Over All Lanes (%):	50.2	Total Delay Over All Lanes(pcuHr):	9.55		

Basic Results Summary

Scenario 11: 'AM Option 4' (FG11: 'AM Option 4', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

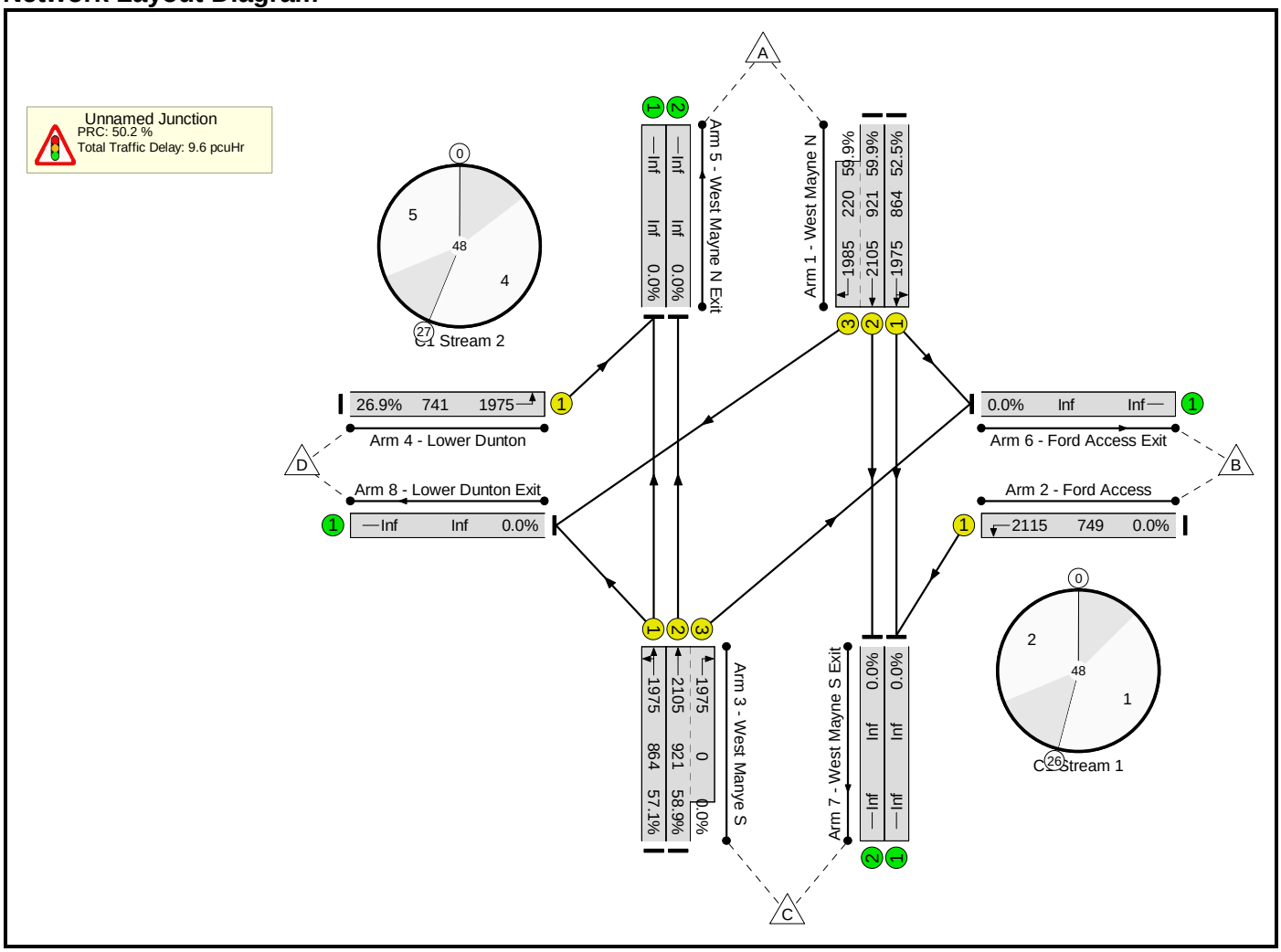
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**58.9%**	**0**	**0**	**0**	**8.7**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**58.9%**	**0**	**0**	**0**	**8.7**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	456	1975	864	52.8%	-	-	-	1.8	14.3	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	637	2105:1985	921+161	58.9 : 58.9%	-	-	-	2.5 (2.1+0.4)	14.3 (14.3:14.6)	6.1
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	413	1975	864	47.8%	-	-	-	1.6	13.6	4.4
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	458	2105:1975	921+0	49.7 : 0.0%	-	-	-	1.7 (1.7+0.0)	13.6 (13.6:0.0)	4.8
4/1	Lower Dunton Left	U	E		1	17	-	254	1975	741	34.3%	-	-	-	1.0	14.5	2.7

C1 Stream: 1 PRC for Signalled Lanes (%): 52.9 Total Delay for Signalled Lanes (pcuHr): 4.34 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 81.0 Total Delay for Signalled Lanes (pcuHr): 4.31 Cycle Time (s): 48
PRC Over All Lanes (%): 52.9 Total Delay Over All Lanes(pcuHr): 8.65

Basic Results Summary

Scenario 12: 'PM Option 4' (FG12: 'PM Option 4', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.9%**	**0**	**0**	**0**	**9.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.9%**	**0**	**0**	**0**	**9.6**	**-**	**-**
1/1	West Mayne N Left Ahead	U	A		1	20	-	454	1975	864	52.5%	-	-	-	1.8	14.2	5.0
1/2+1/3	West Mayne N Ahead Right	U	A F		1	20:16	-	684	2105:1985	921+220	59.9 : 59.9%	-	-	-	2.7 (2.2+0.5)	14.3 (14.2:14.7)	6.3
2/1	Ford Access Left	U	B		1	16	-	0	2115	749	0.0%	-	-	-	0.0	0.0	0.0
3/1	West Manye S Ahead Left	U	D		1	20	-	493	1975	864	57.1%	-	-	-	2.0	15.0	5.5
3/2+3/3	West Manye S Ahead Right	U	D C		1	20:16	-	542	2105:1975	921+0	58.9 : 0.0%	-	-	-	2.3 (2.3+0.0)	15.0 (15.0:0.0)	6.1
4/1	Lower Dunton Left	U	E		1	17	-	199	1975	741	26.9%	-	-	-	0.8	13.8	2.0

C1 Stream: 1 PRC for Signalled Lanes (%): 50.2 Total Delay for Signalled Lanes (pcuHr): 4.51 Cycle Time (s): 48
C1 Stream: 2 PRC for Signalled Lanes (%): 52.9 Total Delay for Signalled Lanes (pcuHr): 5.06 Cycle Time (s): 48
PRC Over All Lanes (%): 50.2 Total Delay Over All Lanes(pcuHr): 9.58