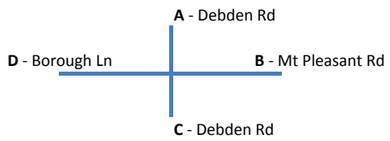
Appendix U

J11 - Debden Road / Mount Plesant Road / Borough Lane – Junction Assessment Data

11 - Debden Rd / Mt Pleasant Rd / Borough Ln



AM Peak 0800-0900

Background Traffic 2012 count

	A	B	C	D
A	0	60	92	19
B	65	0	64	152
C	214	106	0	78
D	17	84	8	0

Tempro 12-18

	A	B	C	D
A	1.038	1.038	1.038	1.038
B	1.038	1.038	1.038	1.038
C	1.038	1.038	1.038	1.038
D	1.038	1.038	1.038	1.038

Background 2018

	A	B	C	D
A	0	62	95	20
B	67	0	66	158
C	222	110	0	81
D	18	87	8	0

Committed Development

	A	B	C	D
A	0	7	5	0
B	5	0	5	16
C	13	8	0	4
D	0	9	0	0

Background + Committed

	A	B	C	D
A	0	69	100	20
B	72	0	71	174
C	235	118	0	85
D	18	96	8	0

Development

	A	B	C	D
A	0	0	0	0
B	0	0	0	49
C	0	0	0	0
D	0	35	0	0

Background + Committed + Development

	A	B	C	D
A	0	69	100	20
B	72	0	71	223
C	235	118	0	85
D	18	132	8	0

PM Peak 1700-1800

Background Traffic 2012 count

	A	B	C	D
A	0	84	242	10
B	56	0	81	132
C	116	90	0	18
D	12	129	12	0

Tempro 12-18

	A	B	C	D
A	1.055	1.055	1.055	1.055
B	1.055	1.055	1.055	1.055
C	1.055	1.055	1.055	1.055
D	1.055	1.055	1.055	1.055

Background 2018

	A	B	C	D
A	0	89	255	11
B	59	0	85	139
C	122	95	0	19
D	13	136	13	0

Committed Development

	A	B	C	D
A	0	16	19	0
B	13	0	12	29
C	7	15	0	1
D	0	23	0	0

Background + Committed

	A	B	C	D
A	0	105	274	11
B	72	0	97	168
C	129	110	0	20
D	13	159	13	0

Development

	A	B	C	D
A	0	0	0	0
B	0	0	0	46
C	0	0	0	0
D	0	46	0	0

Background + Committed + Development

	A	B	C	D
A	0	105	274	11
B	72	0	97	214
C	129	110	0	20
D	13	205	13	0

AM Peak 0800-0900

Tempro 12-26

	A	B	C	D
A	1.069	1.069	1.069	1.069
B	1.069	1.069	1.069	1.069
C	1.069	1.069	1.069	1.069
D	1.069	1.069	1.069	1.069

Background 2026

	A	B	C	D
A	0	64	98	20
B	69	0	68	162
C	229	113	0	83
D	18	90	9	0

Committed Development

	A	B	C	D
A	0	7	5	0
B	5	0	5	16
C	13	8	0	4
D	0	9	0	0

Background + Committed

	A	B	C	D
A	0	71	103	20
B	74	0	73	178
C	242	121	0	87
D	18	99	9	0

Development

	A	B	C	D
A	0	0	0	0
B	0	0	0	49
C	0	0	0	0
D	0	35	0	0

Background + Committed + Development

	A	B	C	D
A	0	71	103	20
B	74	0	73	227
C	242	121	0	87
D	18	134	9	0

PM Peak 1700-1800

Tempro 12-26

	A	B	C	D
A	1.113	1.113	1.113	1.113
B	1.113	1.113	1.113	1.113
C	1.113	1.113	1.113	1.113
D	1.113	1.113	1.113	1.113

Background 2026

	A	B	C	D
A	0	93	269	11
B	62	0	90	147
C	129	100	0	20
D	13	144	13	0

Committed Development

	A	B	C	D
A	0	16	19	0
B	13	0	12	29
C	7	15	0	1
D	0	23	0	0

Background + Committed

	A	B	C	D
A	0	109	288	11
B	75	0	102	176
C	136	115	0	21
D	13	167	13	0

Development

	A	B	C	D
A	0	0	0	0
B	0	0	0	46
C	0	0	0	0
D	0	46	0	0

Background + Committed + Development

	A	B	C	D
A	0	109	288	11
B	75	0	102	222
C	136	115	0	21
D	13	213	13	0

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.2.316 [14 Feb 2013]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: (new file)
Path:
Report generation date: 05/12/2013 10:11:05

» (Default Analysis Set) - 2018 - Back + Comm, AM
» (Default Analysis Set) - 2018 - Back + Comm + Dev, AM
» (Default Analysis Set) - 2018 - Back + Comm, PM
» (Default Analysis Set) - 2018 - Back + Comm + Dev, PM

Summary of junction performance

	AM				
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)
A1 - 2018 - Back + Comm					
Stream B-CD	1.00	18.87	0.51	C	14.15
Stream B-AD	0.81	19.15	0.45	C	
Stream A-BCD	0.08	6.18	0.05	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	
Stream D-ABC	0.57	15.55	0.36	C	
Stream C-ABD	0.63	6.45	0.29	A	
Stream C-D	-	-	-	-	
Stream C-A	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - 2018 - Back + Comm, AM " model duration: 07:45 - 09:15
"D2 - 2018 - Back + Comm + Dev, AM" model duration: 07:45 - 09:15
"D3 - 2018 - Back + Comm, PM" model duration: 16:45 - 18:15
"D4 - 2018 - Back + Comm + Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 05/12/2013 10:11:03

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	05/12/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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) - 2018 - Back + Comm, 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
2018 - Back + Comm, AM	2018 - Back + Comm	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	Crossroads	Two-way	A,B,C,D		14.15	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	(untitled)		Major
B	(untitled)		Minor
C	(untitled)		Major
D	(untitled)		Minor

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)
A	6.45		0.00		2.20	50.00	✓	0.00
C	6.45		0.00		2.20	50.00	✓	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 plus flare				10.00	5.06	3.30	2.90	2.90	✓	1.00	21	19
D	One lane	3.13										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	602.919	-	-	-	-	-	-	0.229	0.327	0.229	-	-	-
1	B-A	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	-	0.240	0.240	0.120
1	B-C	684.601	0.103	0.260	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	B-D, offside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	C-B	602.919	0.229	0.229	0.327	-	-	-	-	-	-	-	-	-
1	D-A	632.057	-	-	-	-	-	-	0.240	-	0.095	-	-	-
1	D-B, nearside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-B, offside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-C	484.071	-	0.137	0.312	0.109	0.218	0.218	0.218	0.218	0.086	-	-	-

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	ONE HOUR	✓	189.00	100.000
B	ONE HOUR	✓	317.00	100.000
C	ONE HOUR	✓	438.00	100.000
D	ONE HOUR	✓	122.00	100.000

Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	69.000	100.000	20.000
	B	72.000	0.000	71.000	174.000
	C	235.000	118.000	0.000	85.000
	D	18.000	96.000	8.000	0.000

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

		To			
		A	B	C	D
From	A	0.00	0.37	0.53	0.11
	B	0.23	0.00	0.22	0.55
	C	0.54	0.27	0.00	0.19
	D	0.15	0.79	0.07	0.00

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	1.009	1.009	1.000	1.000
	D	1.000	1.041	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.900	0.900	0.000	0.000
	D	0.000	4.100	0.000	0.000

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-CD	0.51	18.87	1.00	C	158.85	238.28	56.36	14.19	0.63	56.37	14.19
B-AD	0.45	19.15	0.81	C	132.03	198.05	48.73	14.76	0.54	48.74	14.77
A-BCD	0.05	6.18	0.08	A	24.65	36.98	5.20	8.44	0.06	5.20	8.44
A-B	-	-	-	-	60.74	91.11	-	-	-	-	-
A-C	-	-	-	-	88.03	132.05	-	-	-	-	-
D-ABC	0.36	15.55	0.57	C	111.95	167.92	37.26	13.31	0.41	37.27	13.32
C-ABD	0.29	6.45	0.63	A	178.13	267.19	41.42	9.30	0.46	41.42	9.30
C-D	-	-	-	-	59.44	89.17	-	-	-	-	-
C-A	-	-	-	-	164.35	246.52	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

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-CD	127.28	31.82	125.80	0.00	467.90	0.272	0.00	0.37	10.479	B
B-AD	111.38	27.84	109.98	0.00	423.33	0.263	0.00	0.35	11.440	B
A-BCD	18.92	4.73	18.76	0.00	608.83	0.031	0.00	0.04	6.099	A
A-B	50.37	12.59	50.37	0.00	-	-	-	-	-	-
A-C	73.00	18.25	73.00	0.00	-	-	-	-	-	-
D-ABC	91.85	22.96	90.69	0.00	414.75	0.221	0.00	0.29	11.426	B
C-ABD	131.89	32.97	130.65	0.00	733.29	0.180	0.00	0.31	6.018	A
C-D	52.56	13.14	52.56	0.00	-	-	-	-	-	-
C-A	145.30	36.32	145.30	0.00	-	-	-	-	-	-

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-CD	154.66	38.66	153.97	0.00	436.06	0.355	0.37	0.54	12.729	B
B-AD	130.32	32.58	129.79	0.00	394.19	0.331	0.35	0.48	13.586	B
A-BCD	23.77	5.94	23.71	0.00	610.83	0.039	0.04	0.05	6.131	A
A-B	59.67	14.92	59.67	0.00	-	-	-	-	-	-
A-C	86.47	21.62	86.47	0.00	-	-	-	-	-	-
D-ABC	109.68	27.42	109.29	0.00	397.33	0.276	0.29	0.39	12.879	B
C-ABD	170.36	42.59	169.91	0.00	759.61	0.224	0.31	0.42	6.162	A
C-D	59.34	14.83	59.34	0.00	-	-	-	-	-	-
C-A	164.06	41.01	164.06	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-CD	194.34	48.59	192.60	0.00	386.35	0.503	0.54	0.97	18.413	C
B-AD	154.68	38.67	153.46	0.00	343.88	0.450	0.48	0.79	18.781	C
A-BCD	31.22	7.81	31.13	0.00	614.49	0.051	0.05	0.08	6.173	A
A-B	72.21	18.05	72.21	0.00	-	-	-	-	-	-
A-C	104.66	26.16	104.66	0.00	-	-	-	-	-	-
D-ABC	134.32	33.58	133.61	0.00	373.39	0.360	0.39	0.57	15.445	C
C-ABD	231.52	57.88	230.71	0.00	796.07	0.291	0.42	0.63	6.428	A
C-D	66.60	16.65	66.60	0.00	-	-	-	-	-	-
C-A	184.13	46.03	184.13	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-CD	194.53	48.63	194.43	0.00	384.95	0.505	0.97	1.00	18.869	C
B-AD	154.49	38.62	154.42	0.00	342.26	0.451	0.79	0.81	19.147	C
A-BCD	31.25	7.81	31.24	0.00	614.32	0.051	0.08	0.08	6.177	A
A-B	72.20	18.05	72.20	0.00	-	-	-	-	-	-
A-C	104.64	26.16	104.64	0.00	-	-	-	-	-	-
D-ABC	134.32	33.58	134.29	0.00	373.15	0.360	0.57	0.57	15.549	C
C-ABD	231.82	57.95	231.79	0.00	796.36	0.291	0.63	0.63	6.448	A
C-D	66.52	16.63	66.52	0.00	-	-	-	-	-	-
C-A	183.91	45.98	183.91	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-CD	154.86	38.72	156.59	0.00	434.39	0.357	1.00	0.57	13.039	B
B-AD	130.12	32.53	131.32	0.00	392.70	0.331	0.81	0.51	13.834	B
A-BCD	23.80	5.95	23.89	0.00	610.55	0.039	0.08	0.06	6.140	A
A-B	59.65	14.91	59.65	0.00	-	-	-	-	-	-
A-C	86.45	21.61	86.45	0.00	-	-	-	-	-	-
D-ABC	109.68	27.42	110.36	0.00	396.96	0.276	0.57	0.40	12.995	B
C-ABD	170.73	42.68	171.51	0.00	760.06	0.225	0.63	0.44	6.187	A
C-D	59.24	14.81	59.24	0.00	-	-	-	-	-	-
C-A	163.78	40.94	163.78	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

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-CD	127.45	31.86	128.18	0.00	466.27	0.273	0.57	0.38	10.672	B
B-AD	111.21	27.80	111.78	0.00	422.05	0.263	0.51	0.36	11.623	B
A-BCD	18.97	4.74	19.03	0.00	608.39	0.031	0.06	0.04	6.111	A
A-B	50.35	12.59	50.35	0.00	-	-	-	-	-	-
A-C	72.97	18.24	72.97	0.00	-	-	-	-	-	-
D-ABC	91.85	22.96	92.26	0.00	414.27	0.222	0.40	0.30	11.553	B
C-ABD	132.44	33.11	132.91	0.00	733.68	0.181	0.44	0.32	6.055	A
C-D	52.41	13.10	52.41	0.00	-	-	-	-	-	-
C-A	144.90	36.22	144.90	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

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-CD	5.24	0.35	10.479	B	B
B-AD	4.99	0.33	11.440	B	B
A-BCD	0.60	0.04	6.099	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	4.11	0.27	11.426	B	B
C-ABD	4.61	0.31	6.018	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	7.74	0.52	12.729	B	B
B-AD	6.97	0.46	13.586	B	B
A-BCD	0.81	0.05	6.131	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	5.59	0.37	12.879	B	B
C-ABD	6.41	0.43	6.162	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	13.62	0.91	18.413	C	B
B-AD	11.12	0.74	18.781	C	B
A-BCD	1.16	0.08	6.173	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	8.09	0.54	15.445	C	B
C-ABD	9.45	0.63	6.428	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	14.84	0.99	18.869	C	B
B-AD	12.00	0.80	19.147	C	B
A-BCD	1.17	0.08	6.177	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	8.55	0.57	15.549	C	B
C-ABD	9.57	0.64	6.448	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	8.96	0.60	13.039	B	B
B-AD	7.99	0.53	13.834	B	B
A-BCD	0.83	0.06	6.140	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	6.28	0.42	12.995	B	B
C-ABD	6.56	0.44	6.187	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

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-CD	5.96	0.40	10.672	B	B
B-AD	5.67	0.38	11.623	B	B
A-BCD	0.62	0.04	6.111	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	4.64	0.31	11.553	B	B
C-ABD	4.80	0.32	6.055	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

(Default Analysis Set) - 2018 - Back + Comm + Dev, 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
2018 - Back + Comm + Dev, AM	2018 - Back + Comm + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	Crossroads	Two-way	A,B,C,D		20.13	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	(untitled)		Major
B	(untitled)		Minor
C	(untitled)		Major
D	(untitled)		Minor

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)
A	6.45		0.00		2.20	50.00	✓	0.00
C	6.45		0.00		2.20	50.00	✓	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 plus flare				10.00	5.06	3.30	2.90	2.90	✓	1.00	21	19
D	One lane	3.13										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	602.919	-	-	-	-	-	-	0.229	0.327	0.229	-	-	-
1	B-A	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	-	0.240	0.240	0.120
1	B-C	684.601	0.103	0.260	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	B-D, offside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	C-B	602.919	0.229	0.229	0.327	-	-	-	-	-	-	-	-	-
1	D-A	632.057	-	-	-	-	-	-	0.240	-	0.095	-	-	-
1	D-B, nearside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-B, offside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-C	484.071	-	0.137	0.312	0.109	0.218	0.218	0.218	0.218	0.086	-	-	-

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	ONE HOUR	✓	189.00	100.000
B	ONE HOUR	✓	366.00	100.000
C	ONE HOUR	✓	438.00	100.000
D	ONE HOUR	✓	158.00	100.000

Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	69.000	100.000	20.000
	B	72.000	0.000	71.000	223.000
	C	235.000	118.000	0.000	85.000
	D	18.000	132.000	8.000	0.000

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

		To			
		A	B	C	D
From	A	0.00	0.37	0.53	0.11
	B	0.20	0.00	0.19	0.61
	C	0.54	0.27	0.00	0.19
	D	0.11	0.84	0.05	0.00

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	1.009	1.009	1.000	1.000
	D	1.000	1.041	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.900	0.900	0.000	0.000
	D	0.000	4.100	0.000	0.000

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-CD	0.66	29.66	1.81	D	185.72	278.58	88.39	19.04	0.98	88.40	19.04
B-AD	0.58	27.85	1.31	D	150.13	225.19	69.18	18.43	0.77	69.19	18.44
A-BCD	0.05	6.18	0.08	A	24.65	36.98	5.20	8.44	0.06	5.20	8.44
A-B	-	-	-	-	60.74	91.11	-	-	-	-	-
A-C	-	-	-	-	88.03	132.05	-	-	-	-	-
D-ABC	0.47	19.10	0.91	C	144.98	217.48	56.34	15.54	0.63	56.35	15.55
C-ABD	0.29	6.45	0.63	A	178.13	267.19	41.42	9.30	0.46	41.42	9.30
C-D	-	-	-	-	59.44	89.17	-	-	-	-	-
C-A	-	-	-	-	164.35	246.52	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

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-CD	148.23	37.06	146.29	0.00	447.59	0.331	0.00	0.49	11.874	B
B-AD	127.31	31.83	125.58	0.00	414.82	0.307	0.00	0.43	12.380	B
A-BCD	18.92	4.73	18.76	0.00	608.83	0.031	0.00	0.04	6.099	A
A-B	50.37	12.59	50.37	0.00	-	-	-	-	-	-
A-C	73.00	18.25	73.00	0.00	-	-	-	-	-	-
D-ABC	118.95	29.74	117.30	0.00	410.34	0.290	0.00	0.41	12.634	B
C-ABD	131.89	32.97	130.65	0.00	733.29	0.180	0.00	0.31	6.018	A
C-D	52.56	13.14	52.56	0.00	-	-	-	-	-	-
C-A	145.30	36.32	145.30	0.00	-	-	-	-	-	-

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-CD	180.57	45.14	179.46	0.00	410.66	0.440	0.49	0.76	15.494	C
B-AD	148.46	37.11	147.68	0.00	378.04	0.393	0.43	0.63	15.571	C
A-BCD	23.77	5.94	23.71	0.00	610.83	0.039	0.04	0.05	6.131	A
A-B	59.67	14.92	59.67	0.00	-	-	-	-	-	-
A-C	86.47	21.62	86.47	0.00	-	-	-	-	-	-
D-ABC	142.04	35.51	141.41	0.00	392.86	0.362	0.41	0.57	14.764	B
C-ABD	170.36	42.59	169.91	0.00	759.61	0.224	0.31	0.42	6.160	A
C-D	59.34	14.83	59.34	0.00	-	-	-	-	-	-
C-A	164.06	41.01	164.06	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-CD	227.79	56.95	224.04	0.00	351.29	0.648	0.76	1.70	27.507	D
B-AD	175.18	43.80	172.74	0.00	307.88	0.569	0.63	1.24	26.169	D
A-BCD	31.22	7.81	31.13	0.00	614.49	0.051	0.05	0.08	6.173	A
A-B	72.21	18.05	72.21	0.00	-	-	-	-	-	-
A-C	104.66	26.16	104.66	0.00	-	-	-	-	-	-
D-ABC	173.96	43.49	172.69	0.00	368.85	0.472	0.57	0.89	18.847	C
C-ABD	231.52	57.88	230.71	0.00	796.07	0.291	0.42	0.63	6.430	A
C-D	66.60	16.65	66.60	0.00	-	-	-	-	-	-
C-A	184.13	46.03	184.13	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-CD	228.21	57.05	227.80	0.00	348.26	0.655	1.70	1.81	29.655	D
B-AD	174.76	43.69	174.50	0.00	303.17	0.576	1.24	1.31	27.853	D
A-BCD	31.25	7.81	31.24	0.00	614.32	0.051	0.08	0.08	6.177	A
A-B	72.20	18.05	72.20	0.00	-	-	-	-	-	-
A-C	104.64	26.16	104.64	0.00	-	-	-	-	-	-
D-ABC	173.96	43.49	173.89	0.00	368.57	0.472	0.89	0.91	19.103	C
C-ABD	231.82	57.95	231.79	0.00	796.36	0.291	0.63	0.63	6.448	A
C-D	66.52	16.63	66.52	0.00	-	-	-	-	-	-
C-A	183.91	45.98	183.91	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-CD	181.01	45.25	184.94	0.00	407.36	0.444	1.81	0.82	16.453	C
B-AD	148.01	37.00	150.55	0.00	374.27	0.395	1.31	0.67	16.264	C
A-BCD	23.80	5.95	23.89	0.00	610.55	0.039	0.08	0.06	6.140	A
A-B	59.65	14.91	59.65	0.00	-	-	-	-	-	-
A-C	86.45	21.61	86.45	0.00	-	-	-	-	-	-
D-ABC	142.04	35.51	143.26	0.00	392.44	0.362	0.91	0.60	15.010	C
C-ABD	170.73	42.68	171.51	0.00	760.06	0.225	0.63	0.44	6.187	A
C-D	59.24	14.81	59.24	0.00	-	-	-	-	-	-
C-A	163.78	40.94	163.78	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

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-CD	148.49	37.12	149.75	0.00	445.37	0.333	0.82	0.51	12.230	B
B-AD	127.05	31.76	127.93	0.00	412.83	0.308	0.67	0.45	12.674	B
A-BCD	18.97	4.74	19.03	0.00	608.39	0.031	0.06	0.04	6.111	A
A-B	50.35	12.59	50.35	0.00	-	-	-	-	-	-
A-C	72.97	18.24	72.97	0.00	-	-	-	-	-	-
D-ABC	118.95	29.74	119.63	0.00	409.85	0.290	0.60	0.43	12.858	B
C-ABD	132.44	33.11	132.91	0.00	733.68	0.181	0.44	0.32	6.055	A
C-D	52.41	13.10	52.41	0.00	-	-	-	-	-	-
C-A	144.90	36.22	144.90	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

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-CD	6.87	0.46	11.874	B	B
B-AD	6.14	0.41	12.380	B	B
A-BCD	0.60	0.04	6.099	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	5.85	0.39	12.634	B	B
C-ABD	4.61	0.31	6.018	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	10.84	0.72	15.494	C	B
B-AD	9.00	0.60	15.571	C	B
A-BCD	0.81	0.05	6.131	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	8.22	0.55	14.764	B	B
C-ABD	6.41	0.43	6.160	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	22.79	1.52	27.507	D	C
B-AD	16.93	1.13	26.169	D	C
A-BCD	1.16	0.08	6.173	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	12.55	0.84	18.847	C	B
C-ABD	9.45	0.63	6.430	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	26.49	1.77	29.655	D	C
B-AD	19.23	1.28	27.853	D	C
A-BCD	1.17	0.08	6.177	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	13.50	0.90	19.103	C	B
C-ABD	9.57	0.64	6.448	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	13.38	0.89	16.453	C	B
B-AD	10.78	0.72	16.264	C	B
A-BCD	0.83	0.06	6.140	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	9.49	0.63	15.010	C	B
C-ABD	6.56	0.44	6.187	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

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-CD	8.02	0.53	12.230	B	B
B-AD	7.10	0.47	12.674	B	B
A-BCD	0.62	0.04	6.111	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	6.73	0.45	12.858	B	B
C-ABD	4.80	0.32	6.055	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

(Default Analysis Set) - 2018 - Back + Comm, 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
2018 - Back + Comm, PM	2018 - Back + Comm	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	Crossroads	Two-way	A,B,C,D		20.23	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	(untitled)		Major
B	(untitled)		Minor
C	(untitled)		Major
D	(untitled)		Minor

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)
A	6.45		0.00		2.20	50.00	✓	0.00
C	6.45		0.00		2.20	50.00	✓	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 plus flare				10.00	5.06	3.30	2.90	2.90	✓	1.00	21	19
D	One lane	3.13										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	602.919	-	-	-	-	-	-	0.229	0.327	0.229	-	-	-
1	B-A	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	-	0.240	0.240	0.120
1	B-C	684.601	0.103	0.260	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	B-D, offside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	C-B	602.919	0.229	0.229	0.327	-	-	-	-	-	-	-	-	-
1	D-A	632.057	-	-	-	-	-	-	0.240	-	0.095	-	-	-
1	D-B, nearside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-B, offside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-C	484.071	-	0.137	0.312	0.109	0.218	0.218	0.218	0.218	0.086	-	-	-

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	ONE HOUR	✓	390.00	100.000
B	ONE HOUR	✓	337.00	100.000
C	ONE HOUR	✓	259.00	100.000
D	ONE HOUR	✓	185.00	100.000

Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	105.000	274.000	11.000
	B	72.000	0.000	97.000	168.000
	C	129.000	110.000	0.000	20.000
	D	13.000	159.000	13.000	0.000

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

		To			
		A	B	C	D
From	A	0.00	0.27	0.70	0.03
	B	0.21	0.00	0.29	0.50
	C	0.50	0.42	0.00	0.08
	D	0.07	0.86	0.07	0.00

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	1.009	1.009	1.000	1.000
	D	1.000	1.041	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.900	0.900	0.000	0.000
	D	0.000	4.100	0.000	0.000

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-CD	0.61	24.88	1.48	C	180.97	271.45	76.45	16.90	0.85	76.46	16.90
B-AD	0.51	25.18	1.01	D	128.27	192.40	56.15	17.51	0.62	56.16	17.51
A-BCD	0.03	4.93	0.04	A	17.63	26.44	2.52	5.72	0.03	2.52	5.72
A-B	-	-	-	-	94.26	141.39	-	-	-	-	-
A-C	-	-	-	-	245.98	368.97	-	-	-	-	-
D-ABC	0.55	22.58	1.25	C	169.76	254.64	74.59	17.58	0.83	74.61	17.58
C-ABD	0.27	7.96	0.46	A	130.80	196.20	30.77	9.41	0.34	30.77	9.41
C-D	-	-	-	-	14.34	21.52	-	-	-	-	-
C-A	-	-	-	-	92.52	138.78	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

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-CD	144.89	36.22	143.11	0.00	463.41	0.313	0.00	0.45	11.180	B
B-AD	108.82	27.20	107.35	0.00	399.42	0.272	0.00	0.37	12.266	B
A-BCD	12.98	3.24	12.89	0.00	744.05	0.017	0.00	0.02	4.923	A
A-B	77.75	19.44	77.75	0.00	-	-	-	-	-	-
A-C	202.89	50.72	202.89	0.00	-	-	-	-	-	-
D-ABC	139.28	34.82	137.18	0.00	408.31	0.341	0.00	0.52	13.643	B
C-ABD	100.90	25.22	99.94	0.00	613.42	0.164	0.00	0.24	7.065	A
C-D	12.63	3.16	12.63	0.00	-	-	-	-	-	-
C-A	81.46	20.37	81.46	0.00	-	-	-	-	-	-

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-CD	176.06	44.01	175.11	0.00	426.77	0.413	0.45	0.68	14.248	B
B-AD	126.90	31.72	126.26	0.00	362.09	0.350	0.37	0.53	15.222	C
A-BCD	16.84	4.21	16.82	0.00	771.21	0.022	0.02	0.03	4.771	A
A-B	92.47	23.12	92.47	0.00	-	-	-	-	-	-
A-C	241.29	60.32	241.29	0.00	-	-	-	-	-	-
D-ABC	166.31	41.58	165.44	0.00	391.54	0.425	0.52	0.74	16.412	C
C-ABD	126.48	31.62	126.16	0.00	616.84	0.205	0.24	0.32	7.404	A
C-D	14.28	3.57	14.28	0.00	-	-	-	-	-	-
C-A	92.08	23.02	92.08	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-CD	221.53	55.38	218.58	0.00	367.99	0.602	0.68	1.42	23.635	C
B-AD	149.52	37.38	147.72	0.00	294.92	0.507	0.53	0.98	24.158	C
A-BCD	23.02	5.75	22.98	0.00	808.51	0.028	0.03	0.04	4.582	A
A-B	112.59	28.15	112.59	0.00	-	-	-	-	-	-
A-C	293.80	73.45	293.80	0.00	-	-	-	-	-	-
D-ABC	203.69	50.92	201.79	0.00	368.48	0.553	0.74	1.22	22.091	C
C-ABD	164.76	41.19	164.20	0.00	621.65	0.265	0.32	0.46	7.945	A
C-D	16.16	4.04	16.16	0.00	-	-	-	-	-	-
C-A	104.24	26.06	104.24	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-CD	221.84	55.46	221.59	0.00	365.70	0.607	1.42	1.48	24.879	C
B-AD	149.20	37.30	149.05	0.00	291.68	0.512	0.98	1.01	25.184	D
A-BCD	23.03	5.76	23.03	0.00	808.40	0.028	0.04	0.04	4.585	A
A-B	112.58	28.15	112.58	0.00	-	-	-	-	-	-
A-C	293.78	73.45	293.78	0.00	-	-	-	-	-	-
D-ABC	203.69	50.92	203.57	0.00	368.26	0.553	1.22	1.25	22.579	C
C-ABD	164.89	41.22	164.88	0.00	621.79	0.265	0.46	0.46	7.961	A
C-D	16.14	4.04	16.14	0.00	-	-	-	-	-	-
C-A	104.13	26.03	104.13	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-CD	176.38	44.10	179.40	0.00	424.30	0.416	1.48	0.73	14.871	B
B-AD	126.57	31.64	128.40	0.00	359.34	0.352	1.01	0.56	15.707	C
A-BCD	16.87	4.22	16.90	0.00	771.02	0.022	0.04	0.03	4.773	A
A-B	92.46	23.11	92.46	0.00	-	-	-	-	-	-
A-C	241.28	60.32	241.28	0.00	-	-	-	-	-	-
D-ABC	166.31	41.58	168.14	0.00	391.21	0.425	1.25	0.79	16.839	C
C-ABD	126.65	31.66	127.18	0.00	617.05	0.205	0.46	0.33	7.427	A
C-D	14.25	3.56	14.25	0.00	-	-	-	-	-	-
C-A	91.94	22.98	91.94	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

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-CD	145.10	36.28	146.16	0.00	461.62	0.314	0.73	0.47	11.451	B
B-AD	108.61	27.15	109.31	0.00	397.71	0.273	0.56	0.38	12.512	B
A-BCD	13.02	3.25	13.04	0.00	743.74	0.018	0.03	0.02	4.926	A
A-B	77.74	19.43	77.74	0.00	-	-	-	-	-	-
A-C	202.86	50.71	202.86	0.00	-	-	-	-	-	-
D-ABC	139.28	34.82	140.24	0.00	407.92	0.341	0.79	0.55	13.972	B
C-ABD	101.12	25.28	101.46	0.00	613.59	0.165	0.33	0.24	7.099	A
C-D	12.60	3.15	12.60	0.00	-	-	-	-	-	-
C-A	81.27	20.32	81.27	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

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-CD	6.34	0.42	11.180	B	B
B-AD	5.21	0.35	12.266	B	B
A-BCD	0.30	0.02	4.923	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	7.36	0.49	13.643	B	B
C-ABD	3.52	0.23	7.065	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	9.78	0.65	14.248	B	B
B-AD	7.55	0.50	15.222	C	B
A-BCD	0.40	0.03	4.771	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	10.60	0.71	16.412	C	B
C-ABD	4.81	0.32	7.404	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	19.38	1.29	23.635	C	C
B-AD	13.51	0.90	24.158	C	C
A-BCD	0.55	0.04	4.582	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	16.93	1.13	22.091	C	C
C-ABD	6.91	0.46	7.945	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	21.92	1.46	24.879	C	C
B-AD	15.01	1.00	25.184	D	C
A-BCD	0.55	0.04	4.585	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	18.52	1.23	22.579	C	C
C-ABD	6.98	0.47	7.961	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	11.71	0.78	14.871	B	B
B-AD	8.89	0.59	15.707	C	B
A-BCD	0.40	0.03	4.773	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	12.57	0.84	16.839	C	B
C-ABD	4.90	0.33	7.427	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

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-CD	7.31	0.49	11.451	B	B
B-AD	5.98	0.40	12.512	B	B
A-BCD	0.31	0.02	4.926	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	8.62	0.57	13.972	B	B
C-ABD	3.65	0.24	7.099	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

(Default Analysis Set) - 2018 - Back + Comm + Dev, 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
2018 - Back + Comm + Dev, PM	2018 - Back + Comm + Dev	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	Crossroads	Two-way	A,B,C,D		35.60	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	(untitled)		Major
B	(untitled)		Minor
C	(untitled)		Major
D	(untitled)		Minor

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)
A	6.45		0.00		2.20	50.00	✓	0.00
C	6.45		0.00		2.20	50.00	✓	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 plus flare				10.00	5.06	3.30	2.90	2.90	✓	1.00	21	19
D	One lane	3.13										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	602.919	-	-	-	-	-	-	0.229	0.327	0.229	-	-	-
1	B-A	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	-	0.240	0.240	0.120
1	B-C	684.601	0.103	0.260	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	B-D, offside lane	531.572	0.095	0.240	0.240	-	-	-	0.151	0.343	0.151	-	-	-
1	C-B	602.919	0.229	0.229	0.327	-	-	-	-	-	-	-	-	-
1	D-A	632.057	-	-	-	-	-	-	0.240	-	0.095	-	-	-
1	D-B, nearside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-B, offside lane	484.071	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
1	D-C	484.071	-	0.137	0.312	0.109	0.218	0.218	0.218	0.218	0.086	-	-	-

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	ONE HOUR	✓	390.00	100.000
B	ONE HOUR	✓	383.00	100.000
C	ONE HOUR	✓	259.00	100.000
D	ONE HOUR	✓	231.00	100.000

Turning Proportions

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

		To			
		A	B	C	D
From	A	0.000	105.000	274.000	11.000
	B	72.000	0.000	97.000	214.000
	C	129.000	110.000	0.000	20.000
	D	13.000	205.000	13.000	0.000

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

		To			
		A	B	C	D
From	A	0.00	0.27	0.70	0.03
	B	0.19	0.00	0.25	0.56
	C	0.50	0.42	0.00	0.08
	D	0.06	0.89	0.06	0.00

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	1.020
	C	1.009	1.009	1.000	1.000
	D	1.000	1.041	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	2.000
	C	0.900	0.900	0.000	0.000
	D	0.000	4.100	0.000	0.000

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-CD	0.79	49.25	3.26	E	206.97	310.45	132.64	25.64	1.47	132.67	25.64
B-AD	0.70	48.72	2.11	E	144.48	216.72	90.87	25.16	1.01	90.88	25.16
A-BCD	0.03	4.93	0.04	A	17.63	26.44	2.52	5.72	0.03	2.52	5.72
A-B	-	-	-	-	94.26	141.39	-	-	-	-	-
A-C	-	-	-	-	245.98	368.97	-	-	-	-	-
D-ABC	0.69	32.93	2.23	D	211.97	317.95	120.50	22.74	1.34	120.55	22.75
C-ABD	0.27	7.96	0.46	A	130.80	196.20	30.77	9.41	0.34	30.77	9.41
C-D	-	-	-	-	14.34	21.52	-	-	-	-	-
C-A	-	-	-	-	92.52	138.78	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

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-CD	164.81	41.20	162.47	0.00	443.03	0.372	0.00	0.59	12.872	B
B-AD	123.54	30.88	121.70	0.00	389.54	0.317	0.00	0.46	13.501	B
A-BCD	12.98	3.24	12.89	0.00	744.05	0.017	0.00	0.02	4.923	A
A-B	77.75	19.44	77.75	0.00	-	-	-	-	-	-
A-C	202.89	50.72	202.89	0.00	-	-	-	-	-	-
D-ABC	173.91	43.48	170.90	0.00	406.42	0.428	0.00	0.75	15.650	C
C-ABD	100.90	25.22	99.94	0.00	613.42	0.164	0.00	0.24	7.065	A
C-D	12.63	3.16	12.63	0.00	-	-	-	-	-	-
C-A	81.46	20.37	81.46	0.00	-	-	-	-	-	-

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-CD	200.89	50.22	199.31	0.00	400.69	0.501	0.59	0.98	17.930	C
B-AD	143.42	35.86	142.44	0.00	342.63	0.419	0.46	0.70	18.089	C
A-BCD	16.84	4.21	16.82	0.00	771.21	0.022	0.02	0.03	4.771	A
A-B	92.47	23.12	92.47	0.00	-	-	-	-	-	-
A-C	241.29	60.32	241.29	0.00	-	-	-	-	-	-
D-ABC	207.66	51.92	206.14	0.00	389.60	0.533	0.75	1.13	20.154	C
C-ABD	126.48	31.62	126.16	0.00	616.84	0.205	0.24	0.32	7.404	A
C-D	14.28	3.57	14.28	0.00	-	-	-	-	-	-
C-A	92.08	23.02	92.08	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-CD	254.11	63.53	246.75	0.00	330.51	0.769	0.98	2.82	40.382	E
B-AD	167.58	41.89	163.10	0.00	249.61	0.671	0.70	1.82	40.173	E
A-BCD	23.02	5.75	22.98	0.00	808.51	0.028	0.03	0.04	4.582	A
A-B	112.59	28.15	112.59	0.00	-	-	-	-	-	-
A-C	293.80	73.45	293.80	0.00	-	-	-	-	-	-
D-ABC	254.34	63.58	250.36	0.00	366.46	0.694	1.13	2.13	31.067	D
C-ABD	164.76	41.19	164.20	0.00	621.65	0.265	0.32	0.46	7.945	A
C-D	16.16	4.04	16.16	0.00	-	-	-	-	-	-
C-A	104.24	26.06	104.24	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-CD	255.01	63.75	253.27	0.00	324.13	0.787	2.82	3.26	49.251	E
B-AD	166.68	41.67	165.51	0.00	238.23	0.700	1.82	2.11	48.716	E
A-BCD	23.03	5.76	23.03	0.00	808.40	0.028	0.04	0.04	4.585	A
A-B	112.58	28.15	112.58	0.00	-	-	-	-	-	-
A-C	293.78	73.45	293.78	0.00	-	-	-	-	-	-
D-ABC	254.34	63.58	253.92	0.00	366.13	0.695	2.13	2.23	32.931	D
C-ABD	164.89	41.22	164.88	0.00	621.79	0.265	0.46	0.46	7.960	A
C-D	16.14	4.04	16.14	0.00	-	-	-	-	-	-
C-A	104.13	26.03	104.13	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-CD	201.83	50.46	210.42	0.00	393.91	0.512	3.26	1.11	20.686	C
B-AD	142.48	35.62	147.82	0.00	333.52	0.427	2.11	0.78	20.103	C
A-BCD	16.87	4.22	16.90	0.00	771.02	0.022	0.04	0.03	4.773	A
A-B	92.46	23.11	92.46	0.00	-	-	-	-	-	-
A-C	241.28	60.32	241.28	0.00	-	-	-	-	-	-
D-ABC	207.66	51.92	211.62	0.00	389.13	0.534	2.23	1.24	21.454	C
C-ABD	126.65	31.66	127.18	0.00	617.05	0.205	0.46	0.33	7.430	A
C-D	14.25	3.56	14.25	0.00	-	-	-	-	-	-
C-A	91.94	22.98	91.94	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

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-CD	165.15	41.29	167.10	0.00	440.35	0.375	1.11	0.62	13.413	B
B-AD	123.19	30.80	124.39	0.00	386.62	0.319	0.78	0.48	13.941	B
A-BCD	13.02	3.25	13.04	0.00	743.74	0.018	0.03	0.02	4.928	A
A-B	77.74	19.43	77.74	0.00	-	-	-	-	-	-
A-C	202.86	50.71	202.86	0.00	-	-	-	-	-	-
D-ABC	173.91	43.48	175.67	0.00	406.01	0.428	1.24	0.80	16.318	C
C-ABD	101.12	25.28	101.46	0.00	613.59	0.165	0.33	0.24	7.099	A
C-D	12.60	3.15	12.60	0.00	-	-	-	-	-	-
C-A	81.27	20.32	81.27	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

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-CD	8.23	0.55	12.872	B	B
B-AD	6.47	0.43	13.501	B	B
A-BCD	0.30	0.02	4.923	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	10.43	0.70	15.650	C	B
C-ABD	3.52	0.23	7.065	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	13.76	0.92	17.930	C	B
B-AD	9.99	0.67	18.089	C	B
A-BCD	0.40	0.03	4.771	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	15.92	1.06	20.154	C	C
C-ABD	4.81	0.32	7.404	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	35.46	2.36	40.382	E	D
B-AD	23.60	1.57	40.173	E	D
A-BCD	0.55	0.04	4.582	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	28.42	1.89	31.067	D	C
C-ABD	6.91	0.46	7.945	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	46.28	3.09	49.251	E	D
B-AD	30.11	2.01	48.716	E	D
A-BCD	0.55	0.04	4.585	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	32.83	2.19	32.931	D	C
C-ABD	6.98	0.47	7.960	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

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-CD	19.06	1.27	20.686	C	C
B-AD	13.06	0.87	20.103	C	C
A-BCD	0.40	0.03	4.773	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	20.19	1.35	21.454	C	C
C-ABD	4.90	0.33	7.430	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

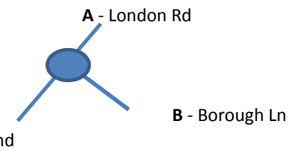
Queueing Delay results: (18:00-18:15)

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-CD	9.84	0.66	13.413	B	B
B-AD	7.62	0.51	13.941	B	B
A-BCD	0.31	0.02	4.928	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-ABC	12.71	0.85	16.318	C	B
C-ABD	3.65	0.24	7.099	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Appendix V

J12 - London Road / Borough Lane – Junction Assessment Data

12 - London Road / Borough Lane



AM Peak 0800-0900

Background Traffic 2012 count

	A	B	C
A	0	17	467
B	33	0	218
C	426	109	0

Tempro 12-18

	A	B	C
A	1.038	1.038	1.038
B	1.038	1.038	1.038
C	1.038	1.038	1.038

Background 2018

	A	B	C
A	0	18	485
B	34	0	226
C	442	113	0

Committed Development

	A	B	C
A	0	0	0
B	0	0	20
C	1	9	0

Background + Committed

	A	B	C
A	0	18	485
B	34	0	246
C	443	122	0

Development

	A	B	C
A	0	0	0
B	0	0	49
C	35	0	0

Background + Committed + Development

	A	B	C
A	0	18	485
B	34	0	295
C	479	122	0

PM Peak 1700-1800

Background Traffic 2012 count

	A	B	C
A	0	19	451
B	15	0	155
C	441	145	0

Tempro 12-18

	A	B	C
A	1.055	1.055	1.055
B	1.055	1.055	1.055
C	1.055	1.055	1.055

Background 2018

	A	B	C
A	0	20	476
B	16	0	164
C	465	153	0

Committed Development

	A	B	C
A	0	1	0
B	0	0	30
C	2	23	0

Background + Committed

	A	B	C
A	0	21	476
B	16	0	194
C	467	176	0

Development

	A	B	C
A	0	0	0
B	0	0	46
C	46	0	0

Background + Committed + Development

	A	B	C
A	0	21	476
B	16	0	240
C	513	176	0

AM Peak 0800-0900

Tempro 12-26

	A	B	C
A	1.069	1.069	1.069
B	1.069	1.069	1.069
C	1.069	1.069	1.069

Background 2026

	A	B	C
A	0	18	499
B	35	0	233
C	455	117	0

Committed Development

	A	B	C
A	0	0	0
B	0	0	20
C	1	9	0

Background + Committed

	A	B	C
A	0	18	499
B	35	0	253
C	456	126	0

Development

	A	B	C
A	0	0	0
B	0	0	49
C	35	0	0

Background + Committed + Development

	A	B	C
A	0	18	499
B	35	0	302
C	492	126	0

PM Peak 1700-1800

Tempro 12-26

	A	B	C
A	1.113	1.113	1.113
B	1.113	1.113	1.113
C	1.113	1.113	1.113

Background 2026

	A	B	C
A	0	21	502
B	17	0	173
C	491	161	0

Committed Development

	A	B	C
A	0	1	0
B	0	0	30
C	2	23	0

Background + Committed

	A	B	C
A	0	22	502
B	17	0	203
C	493	184	0

Development

	A	B	C
A	0	0	0
B	0	0	46
C	46	0	0

Background + Committed + Development

	A	B	C
A	0	22	502
B	17	0	249
C	539	184	0

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: J12-London Rd - Borough Ln.arc8
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J12-London Rd - Borough Ln
Report generation date: 02/12/2013 17:38:38

Summary of junction performance

	AM				
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)
	J12 - London Rd _ Borough Ln - 2018 - Back + Comm				
Arm 1	4.98	34.33	0.85	D	25.41
Arm 2	3.36	41.78	0.79	E	
Arm 3	1.60	9.36	0.62	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - 2018 - Back + Comm, AM " model duration: 07:45 - 09:15
"D2 - 2018 - Back + Comm + Dev, AM" model duration: 07:45 - 09:15
"D3 - 2018 - Back + Comm, PM" model duration: 16:45 - 18:15
"D4 - 2018 - Back + Comm + Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 02/12/2013 17:38:37

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	18/11/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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

J12 - London Rd _ Borough Ln - 2018 - Back + Comm, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm, AM	2018 - Back + Comm	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	25.41	D

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	3.71	3.90	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.518	666.148
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	503.00	100.000
2	ONE HOUR	✓	280.00	100.000
3	ONE HOUR	✓	565.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	18.000	485.000
	2	34.000	0.000	246.000
	3	443.000	122.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.12	0.00	0.88
	3	0.78	0.22	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.85	34.33	4.98	D	461.56	692.34	234.15	20.29	2.60	234.23	20.30
2	0.79	41.78	3.36	E	256.93	385.40	152.83	23.79	1.70	152.87	23.80
3	0.62	9.36	1.60	A	518.45	777.68	98.36	7.59	1.09	98.38	7.59

Main Results for each time segment

Main results: (07:45-08:00)

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
1	378.68	94.67	373.73	356.50	91.23	0.00	675.41	611.76	0.561	0.00	1.24	11.750	B
2	210.80	52.70	207.74	104.61	360.36	0.00	479.56	360.72	0.440	0.00	0.76	13.103	B
3	425.36	106.34	422.51	542.87	25.23	0.00	1014.48	1001.92	0.419	0.00	0.71	6.052	A

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
1	452.19	113.05	449.11	427.69	109.43	0.00	666.15	611.76	0.679	1.24	2.01	16.345	C
2	251.71	62.93	249.71	125.50	433.04	0.00	441.92	360.72	0.570	0.76	1.27	18.528	C
3	507.92	126.98	506.80	652.43	30.32	0.00	1011.03	1001.92	0.502	0.71	0.99	7.123	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
1	553.81	138.45	543.51	522.51	133.82	0.00	653.74	611.76	0.847	2.01	4.58	30.101	D
2	308.29	77.07	301.23	153.27	524.06	0.00	394.80	360.72	0.781	1.27	3.03	36.008	E
3	622.08	155.52	619.75	788.71	36.58	0.00	1006.80	1001.92	0.618	0.99	1.58	9.243	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
1	553.81	138.45	552.24	524.96	134.31	0.00	653.49	611.76	0.847	4.58	4.98	34.330	D
2	308.29	77.07	306.96	154.07	532.48	0.00	390.43	360.72	0.790	3.03	3.36	41.783	E
3	622.08	155.52	621.99	802.17	37.27	0.00	1006.33	1001.92	0.618	1.58	1.60	9.360	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
1	452.19	113.05	463.16	431.53	110.17	0.00	665.77	611.76	0.679	4.98	2.23	18.622	C
2	251.71	62.93	259.39	126.74	446.58	0.00	434.91	360.72	0.579	3.36	1.44	21.314	C
3	507.92	126.98	510.20	674.48	31.50	0.00	1010.24	1001.92	0.503	1.60	1.03	7.234	A

Main results: (09:00-09:15)

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
1	378.68	94.67	382.35	360.34	92.10	0.00	674.96	611.76	0.561	2.23	1.32	12.452	B
2	210.80	52.70	213.29	105.79	368.67	0.00	475.25	360.72	0.444	1.44	0.82	13.871	B
3	425.36	106.34	426.55	556.07	25.90	0.00	1014.02	1001.92	0.419	1.03	0.73	6.142	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

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
1	17.23	1.15	11.750	B	B
2	10.69	0.71	13.103	B	B
3	10.29	0.69	6.052	A	A

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
1	27.92	1.86	16.345	C	B
2	17.69	1.18	18.528	C	B
3	14.43	0.96	7.123	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
1	58.20	3.88	30.101	D	C
2	38.72	2.58	36.008	E	D
3	22.49	1.50	9.243	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
1	72.20	4.81	34.330	D	C
2	48.44	3.23	41.783	E	D
3	23.83	1.59	9.360	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
1	37.60	2.51	18.622	C	B
2	24.26	1.62	21.314	C	C
3	16.03	1.07	7.234	A	A

Queueing Delay results: (09:00-09:15)

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
1	20.99	1.40	12.452	B	B
2	13.03	0.87	13.871	B	B
3	11.29	0.75	6.142	A	A

J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm + Dev, AM	2018 - Back + Comm + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	35.42	E

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	3.71	3.90	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.518	666.148
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	503.00	100.000
2	ONE HOUR	✓	329.00	100.000
3	ONE HOUR	✓	601.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	18.000	485.000
	2	34.000	0.000	295.000
	3	479.000	122.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.10	0.00	0.90
	3	0.80	0.20	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.85	34.33	4.97	D	461.56	692.34	234.13	20.29	2.60	234.20	20.30
2	0.93	82.77	7.79	F	301.90	452.84	280.85	37.21	3.12	280.93	37.22
3	0.66	10.42	1.89	B	551.49	827.23	113.14	8.21	1.26	113.16	8.21

Main Results for each time segment

Main results: (07:45-08:00)

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
1	378.68	94.67	373.73	383.25	91.20	0.00	675.42	617.87	0.561	0.00	1.24	11.749	B
2	247.69	61.92	243.56	104.58	360.36	0.00	479.56	357.67	0.516	0.00	1.03	15.008	C
3	452.46	113.12	449.28	578.75	25.17	0.00	1014.51	1006.54	0.446	0.00	0.79	6.334	A

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
1	452.19	113.05	449.11	459.76	109.41	0.00	666.16	617.87	0.679	1.24	2.01	16.344	C
2	295.76	73.94	292.36	125.48	433.04	0.00	441.92	357.67	0.669	1.03	1.88	23.528	C
3	540.29	135.07	538.95	695.19	30.21	0.00	1011.11	1006.54	0.534	0.79	1.13	7.603	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
1	553.81	138.45	543.51	560.75	133.73	0.00	653.78	617.87	0.847	2.01	4.58	30.091	D
2	362.24	90.56	345.27	153.18	524.06	0.00	394.79	357.67	0.918	1.88	6.13	58.875	F
3	661.71	165.43	658.80	833.65	35.68	0.00	1007.41	1006.54	0.657	1.13	1.85	10.240	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
1	553.81	138.45	552.24	564.04	134.30	0.00	653.50	617.87	0.847	4.58	4.97	34.325	D
2	362.24	90.56	355.58	154.06	532.48	0.00	390.44	357.67	0.928	6.13	7.79	82.767	F
3	661.71	165.43	661.59	851.31	36.75	0.00	1006.69	1006.54	0.657	1.85	1.89	10.420	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
1	452.19	113.05	463.15	465.71	110.26	0.00	665.73	617.87	0.679	4.97	2.23	18.624	C
2	295.76	73.94	317.65	126.83	446.58	0.00	434.91	357.67	0.680	7.79	2.32	35.052	E
3	540.29	135.07	543.14	731.40	32.83	0.00	1009.34	1006.54	0.535	1.89	1.17	7.768	A

Main results: (09:00-09:15)

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
1	378.68	94.67	382.36	387.84	92.14	0.00	674.94	617.87	0.561	2.23	1.32	12.452	B
2	247.69	61.92	252.46	105.82	368.67	0.00	475.25	357.67	0.521	2.32	1.13	16.481	C
3	452.46	113.12	453.89	595.04	26.09	0.00	1013.89	1006.54	0.446	1.17	0.82	6.444	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

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
1	17.23	1.15	11.749	B	B
2	14.24	0.95	15.008	C	B
3	11.43	0.76	6.334	A	A

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
1	27.92	1.86	16.344	C	B
2	25.64	1.71	23.528	C	C
3	16.32	1.09	7.603	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
1	58.19	3.88	30.091	D	C
2	69.85	4.66	58.875	F	E
3	26.26	1.75	10.240	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
1	72.19	4.81	34.325	D	C
2	105.82	7.05	82.767	F	F
3	28.11	1.87	10.420	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
1	37.61	2.51	18.624	C	B
2	47.01	3.13	35.052	E	D
3	18.38	1.23	7.768	A	A

Queueing Delay results: (09:00-09:15)

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
1	20.99	1.40	12.452	B	B
2	18.30	1.22	16.481	C	B
3	12.64	0.84	6.444	A	A

J12 - London Rd _ Borough Ln - 2018 - Back + Comm, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm, PM	2018 - Back + Comm	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	24.66	C

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	3.71	3.90	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.518	666.148
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	497.00	100.000
2	ONE HOUR	✓	210.00	100.000
3	ONE HOUR	✓	643.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	21.000	476.000
	2	16.000	0.000	194.000
	3	467.000	176.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.08	0.00	0.92
	3	0.73	0.27	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.88	42.89	6.09	E	456.06	684.08	266.77	23.40	2.96	266.86	23.41
2	0.58	21.73	1.36	C	192.70	289.05	75.21	15.61	0.84	75.22	15.61
3	0.69	11.53	2.23	B	590.03	885.04	129.98	8.81	1.44	130.00	8.81

Main Results for each time segment

Main results: (16:45-17:00)

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
1	374.17	93.54	369.00	360.91	131.53	0.00	654.90	580.89	0.571	0.00	1.29	12.381	B
2	158.10	39.52	156.19	147.12	353.41	0.00	483.15	378.08	0.327	0.00	0.48	10.948	B
3	484.08	121.02	480.54	497.70	11.90	0.00	1023.48	1012.06	0.473	0.00	0.89	6.589	A

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
1	446.79	111.70	443.31	433.00	157.79	0.00	641.55	580.89	0.696	1.29	2.16	17.834	C
2	188.79	47.20	187.84	176.52	424.58	0.00	446.31	378.08	0.423	0.48	0.71	13.874	B
3	578.04	144.51	576.48	598.10	14.31	0.00	1021.85	1012.06	0.566	0.89	1.28	8.054	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
1	547.21	136.80	534.09	528.98	192.79	0.00	623.74	580.89	0.877	2.16	5.44	35.726	E
2	231.21	57.80	228.90	215.35	511.52	0.00	401.29	378.08	0.576	0.71	1.29	20.604	C
3	707.96	176.99	704.33	722.99	17.44	0.00	1019.74	1012.06	0.694	1.28	2.18	11.282	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
1	547.21	136.80	544.62	531.65	193.73	0.00	623.26	580.89	0.878	5.44	6.09	42.891	E
2	231.21	57.80	230.96	216.75	521.61	0.00	396.07	378.08	0.584	1.29	1.36	21.734	C
3	707.96	176.99	707.79	734.97	17.60	0.00	1019.63	1012.06	0.694	2.18	2.23	11.527	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
1	446.79	111.70	461.34	436.99	159.20	0.00	640.83	580.89	0.697	6.09	2.45	21.444	C
2	188.79	47.20	191.09	178.70	441.85	0.00	437.36	378.08	0.432	1.36	0.78	14.751	B
3	578.04	144.51	581.63	618.38	14.56	0.00	1021.69	1012.06	0.566	2.23	1.33	8.246	A

Main results: (18:00-18:15)

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
1	374.17	93.54	378.46	364.93	132.96	0.00	654.18	580.89	0.572	2.45	1.38	13.250	B
2	158.10	39.52	159.21	148.95	362.47	0.00	478.47	378.08	0.330	0.78	0.50	11.314	B
3	484.08	121.02	485.76	509.55	12.13	0.00	1023.33	1012.06	0.473	1.33	0.91	6.717	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

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
1	17.89	1.19	12.381	B	B
2	6.78	0.45	10.948	B	B
3	12.70	0.85	6.589	A	A

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
1	29.85	1.99	17.834	C	B
2	10.22	0.68	13.874	B	B
3	18.41	1.23	8.054	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
1	66.93	4.46	35.726	E	D
2	17.90	1.19	20.604	C	C
3	30.66	2.04	11.282	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
1	87.23	5.82	42.891	E	D
2	20.00	1.33	21.734	C	C
3	33.15	2.21	11.527	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
1	42.78	2.85	21.444	C	C
2	12.43	0.83	14.751	B	B
3	20.93	1.40	8.246	A	A

Queueing Delay results: (18:00-18:15)

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
1	22.10	1.47	13.250	B	B
2	7.87	0.52	11.314	B	B
3	14.13	0.94	6.717	A	A

J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm + Dev, PM	2018 - Back + Comm + Dev	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	26.83	D

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	3.71	3.90	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.518	666.148
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	497.00	100.000
2	ONE HOUR	✓	256.00	100.000
3	ONE HOUR	✓	689.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	21.000	476.000
	2	16.000	0.000	240.000
	3	513.000	176.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.06	0.00	0.94
	3	0.74	0.26	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.88	42.87	6.09	E	456.06	684.08	266.67	23.39	2.96	266.76	23.40
2	0.71	30.96	2.31	D	234.91	352.37	115.64	19.69	1.28	115.67	19.70
3	0.74	13.73	2.82	B	632.24	948.36	157.25	9.95	1.75	157.28	9.95

Main Results for each time segment

Main results: (16:45-17:00)

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
1	374.17	93.54	369.01	395.08	131.47	0.00	654.94	589.82	0.571	0.00	1.29	12.380	B
2	192.73	48.18	190.13	147.06	353.41	0.00	483.15	373.65	0.399	0.00	0.65	12.173	B
3	518.72	129.68	514.67	531.67	11.88	0.00	1023.49	1015.74	0.507	0.00	1.01	7.022	A

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
1	446.79	111.70	443.31	474.00	157.72	0.00	641.58	589.82	0.696	1.29	2.16	17.824	C
2	230.14	57.53	228.62	176.45	424.58	0.00	446.31	373.65	0.516	0.65	1.03	16.419	C
3	619.40	154.85	617.43	638.91	14.29	0.00	1021.87	1015.74	0.606	1.01	1.50	8.857	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
1	547.21	136.80	534.12	578.44	192.50	0.00	623.89	589.82	0.877	2.16	5.43	35.689	E
2	281.86	70.47	277.39	215.07	511.55	0.00	401.27	373.65	0.702	1.03	2.15	28.076	D
3	758.60	189.65	753.61	771.60	17.34	0.00	1019.81	1015.74	0.744	1.50	2.75	13.272	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
1	547.21	136.80	544.60	582.18	193.71	0.00	623.28	589.82	0.878	5.43	6.09	42.872	E
2	281.86	70.47	281.19	216.72	521.59	0.00	396.07	373.65	0.712	2.15	2.31	30.956	D
3	758.60	189.65	758.31	785.21	17.57	0.00	1019.65	1015.74	0.744	2.75	2.82	13.733	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
1	446.79	111.70	461.32	479.56	159.49	0.00	640.68	589.82	0.697	6.09	2.45	21.460	C
2	230.14	57.53	234.78	178.99	441.83	0.00	437.37	373.65	0.526	2.31	1.15	18.147	C
3	619.40	154.85	624.39	661.93	14.67	0.00	1021.61	1015.74	0.606	2.82	1.58	9.174	A

Main results: (18:00-18:15)

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
1	374.17	93.54	378.47	399.96	133.05	0.00	654.13	589.82	0.572	2.45	1.38	13.256	B
2	192.73	48.18	194.58	149.04	362.47	0.00	478.46	373.65	0.403	1.15	0.69	12.764	B
3	518.72	129.68	520.85	544.90	12.16	0.00	1023.31	1015.74	0.507	1.58	1.04	7.197	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

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
1	17.88	1.19	12.380	B	B
2	9.13	0.61	12.173	B	B
3	14.45	0.96	7.022	A	A

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
1	29.84	1.99	17.824	C	B
2	14.51	0.97	16.419	C	B
3	21.54	1.44	8.857	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
1	66.86	4.46	35.689	E	D
2	28.57	1.90	28.076	D	C
3	38.00	2.53	13.272	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
1	87.17	5.81	42.872	E	D
2	33.74	2.25	30.956	D	C
3	41.94	2.80	13.733	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
1	42.81	2.85	21.460	C	C
2	18.77	1.25	18.147	C	B
3	25.04	1.67	9.174	A	A

Queueing Delay results: (18:00-18:15)

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
1	22.10	1.47	13.256	B	B
2	10.91	0.73	12.764	B	B
3	16.28	1.09	7.197	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013]

Filename: J12-London Rd - Borough Ln-Nil Det.arc8
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J12-London Rd - Borough Ln
Report generation date: 05/12/2013 11:14:46

» J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev + Nil Det, AM
» J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev + Nil Dev, PM

Summary of junction performance

	AM				
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)
	J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev + Nil Det				
Arm 1	4.97	34.33	0.85	D	27.53
Arm 2	4.54	48.40	0.84	E	
Arm 3	1.89	10.43	0.66	B	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D2 - 2018 - Back + Comm + Dev + Nil Det, AM " model duration: 07:45 - 09:15
"D4 - 2018 - Back + Comm + Dev + Nil Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 05/12/2013 11:14:46

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	18/11/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
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

J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev + Nil Det, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm + Dev + Nil Det, AM	2018 - Back + Comm + Dev + Nil Det	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	27.53	D

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	4.00	6.00	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.529	711.601
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	503.00	100.000
2	ONE HOUR	✓	329.00	100.000
3	ONE HOUR	✓	601.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	18.000	485.000
	2	34.000	0.000	295.000
	3	479.000	122.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.10	0.00	0.90
	3	0.80	0.20	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.85	34.33	4.97	D	461.56	692.34	234.13	20.29	2.60	234.20	20.30
2	0.84	48.40	4.54	E	301.90	452.84	192.39	25.49	2.14	192.44	25.50
3	0.66	10.43	1.89	B	551.49	827.23	113.17	8.21	1.26	113.19	8.21

Main Results for each time segment

Main results: (07:45-08:00)

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
1	378.68	94.67	373.73	383.31	91.20	0.00	675.42	618.16	0.561	0.00	1.24	11.749	B
2	247.69	61.92	244.16	104.58	360.36	0.00	521.13	396.56	0.475	0.00	0.88	12.843	B
3	452.46	113.12	449.28	579.29	25.23	0.00	1014.47	1003.83	0.446	0.00	0.79	6.334	A

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
1	452.19	113.05	449.11	459.86	109.41	0.00	666.16	618.16	0.679	1.24	2.01	16.344	C
2	295.76	73.94	293.27	125.48	433.04	0.00	482.71	396.56	0.613	0.88	1.51	18.750	C
3	540.29	135.07	538.95	696.00	30.31	0.00	1011.04	1003.83	0.534	0.79	1.13	7.604	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
1	553.81	138.45	543.51	561.48	133.73	0.00	653.79	618.16	0.847	2.01	4.58	30.091	D
2	362.24	90.56	352.36	153.18	524.06	0.00	434.60	396.56	0.833	1.51	3.97	39.704	E
3	661.71	165.43	658.80	840.01	36.41	0.00	1006.92	1003.83	0.657	1.13	1.86	10.252	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
1	553.81	138.45	552.24	564.49	134.30	0.00	653.50	618.16	0.847	4.58	4.97	34.325	D
2	362.24	90.56	359.99	154.06	532.48	0.00	430.15	396.56	0.842	3.97	4.54	48.397	E
3	661.71	165.43	661.59	855.26	37.20	0.00	1006.38	1003.83	0.658	1.86	1.89	10.432	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
1	452.19	113.05	463.15	464.62	110.26	0.00	665.73	618.16	0.679	4.97	2.23	18.625	C
2	295.76	73.94	306.96	126.83	446.58	0.00	475.56	396.56	0.622	4.54	1.74	22.590	C
3	540.29	135.07	543.16	721.81	31.72	0.00	1010.09	1003.83	0.535	1.89	1.17	7.758	A

Main results: (09:00-09:15)

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
1	378.68	94.67	382.36	387.67	92.14	0.00	674.95	618.16	0.561	2.23	1.32	12.455	B
2	247.69	61.92	250.86	105.82	368.67	0.00	516.74	396.56	0.479	1.74	0.95	13.696	B
3	452.46	113.12	453.88	593.61	25.92	0.00	1014.00	1003.83	0.446	1.17	0.82	6.442	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

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
1	17.23	1.15	11.749	B	B
2	12.31	0.82	12.843	B	B
3	11.43	0.76	6.334	A	A

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
1	27.92	1.86	16.344	C	B
2	20.91	1.39	18.750	C	B
3	16.32	1.09	7.604	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
1	58.19	3.88	30.091	D	C
2	49.26	3.28	39.704	E	D
3	26.29	1.75	10.252	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
1	72.19	4.81	34.325	D	C
2	64.60	4.31	48.397	E	D
3	28.14	1.88	10.432	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
1	37.61	2.51	18.625	C	B
2	30.20	2.01	22.590	C	C
3	18.35	1.22	7.758	A	A

Queueing Delay results: (09:00-09:15)

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
1	20.99	1.40	12.455	B	B
2	15.11	1.01	13.696	B	B
3	12.64	0.84	6.442	A	A

J12 - London Rd _ Borough Ln - 2018 - Back + Comm + Dev + Nil Dev, 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
J12 - London Rd _ Borough Ln	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
2018 - Back + Comm + Dev + Nil Dev, PM	2018 - Back + Comm + Dev + Nil Dev	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	Mini-roundabout	1,2,3	25.46	

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	London Rd (N)	
2	Borough Lane	
3	London Rd (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	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
1	3.09	3.09	3.09	0.00	8.09	4.20	0.00	
2	2.70	2.70	4.00	6.00	11.86	7.60	0.00	
3	3.73	3.73	3.73	0.00	17.55	17.10	0.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

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)
1		(calculated)	(calculated)	0.509	721.816
2		(calculated)	(calculated)	0.529	711.601
3		(calculated)	(calculated)	0.676	1031.526

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 (%)
1	ONE HOUR	✓	497.00	100.000
2	ONE HOUR	✓	256.00	100.000
3	ONE HOUR	✓	689.00	100.000

Turning Proportions

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

		To		
		1	2	3
From	1	0.000	21.000	476.000
	2	16.000	0.000	240.000
	3	513.000	176.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.04	0.96
	2	0.06	0.00	0.94
	3	0.74	0.26	0.00

Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

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)
1	0.88	42.87	6.09	E	456.06	684.08	266.67	23.39	2.96	266.76	23.40
2	0.65	23.19	1.76	C	234.91	352.37	93.79	15.97	1.04	93.81	15.97
3	0.74	13.73	2.82	B	632.24	948.36	157.26	9.95	1.75	157.29	9.95

Main Results for each time segment

Main results: (16:45-17:00)

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
1	374.17	93.54	369.01	395.10	131.47	0.00	654.94	590.04	0.571	0.00	1.29	12.380	B
2	192.73	48.18	190.45	147.06	353.41	0.00	524.80	412.91	0.367	0.00	0.57	10.696	B
3	518.72	129.68	514.67	531.96	11.90	0.00	1023.48	1014.08	0.507	0.00	1.01	7.022	A

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
1	446.79	111.70	443.31	474.02	157.72	0.00	641.58	590.04	0.696	1.29	2.16	17.824	C
2	230.14	57.53	228.93	176.45	424.58	0.00	487.19	412.91	0.472	0.57	0.87	13.873	B
3	619.40	154.85	617.43	639.20	14.31	0.00	1021.86	1014.08	0.606	1.01	1.50	8.857	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
1	547.21	136.80	534.12	578.52	192.50	0.00	623.89	590.04	0.877	2.16	5.43	35.689	E
2	281.86	70.47	278.70	215.07	511.55	0.00	441.22	412.91	0.639	0.87	1.66	21.727	C
3	758.60	189.65	753.60	772.82	17.42	0.00	1019.75	1014.08	0.744	1.50	2.75	13.275	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
1	547.21	136.80	544.60	582.20	193.71	0.00	623.28	590.04	0.878	5.43	6.09	42.872	E
2	281.86	70.47	281.49	216.72	521.59	0.00	435.91	412.91	0.647	1.66	1.76	23.193	C
3	758.60	189.65	758.32	785.49	17.59	0.00	1019.64	1014.08	0.744	2.75	2.82	13.733	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
1	446.79	111.70	461.32	479.48	159.50	0.00	640.68	590.04	0.697	6.09	2.45	21.460	C
2	230.14	57.53	233.34	178.99	441.83	0.00	478.07	412.91	0.481	1.76	0.96	14.895	B
3	619.40	154.85	624.39	660.58	14.58	0.00	1021.67	1014.08	0.606	2.82	1.58	9.171	A

Main results: (18:00-18:15)

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
1	374.17	93.54	378.47	399.94	133.05	0.00	654.13	590.04	0.572	2.45	1.38	13.253	B
2	192.73	48.18	194.15	149.04	362.47	0.00	520.01	412.91	0.371	0.96	0.60	11.094	B
3	518.72	129.68	520.85	544.49	12.13	0.00	1023.32	1014.08	0.507	1.58	1.04	7.193	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

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
1	17.88	1.19	12.380	B	B
2	8.08	0.54	10.696	B	B
3	14.45	0.96	7.022	A	A

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
1	29.84	1.99	17.824	C	B
2	12.41	0.83	13.873	B	B
3	21.54	1.44	8.857	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
1	66.86	4.46	35.689	E	D
2	22.75	1.52	21.727	C	C
3	38.01	2.53	13.275	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
1	87.17	5.81	42.872	E	D
2	25.82	1.72	23.193	C	C
3	41.94	2.80	13.733	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
1	42.81	2.85	21.460	C	C
2	15.31	1.02	14.895	B	B
3	25.04	1.67	9.171	A	A

Queueing Delay results: (18:00-18:15)

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
1	22.10	1.47	13.253	B	B
2	9.42	0.63	11.094	B	B
3	16.28	1.09	7.193	A	A