

Junctions 9
PICADY 9 - Priority Intersection Module
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Path: J:\33374 Heyford Park 400 dwelling application\Technical\Transport\Junction Assessments\PICADY\2018 Addendum\PICADY\2022 Sens RefJ18 - A4260-B4027
Report generation date: 17/04/2018 15:12:50

- »2022 Ref Sensitivity, AM
- »2022 Ref Sensitivity, PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2022 Ref Sensitivity										
Stream B-C	0.6	19.24	0.38	C	-4 % [Stream B-AD]	0.0	7.62	0.01	A	21 % [Stream D-BC]
Stream B-AD	1.9	43.67	0.66	E		0.6	17.59	0.39	C	
Stream A-BCD	0.0	3.01	0.02	A		0.0	4.82	0.00	A	
Stream D-A	0.0	17.39	0.01	C		0.0	8.83	0.00	A	
Stream D-BC	2.2	36.53	0.69	E		0.7	19.40	0.41	C	
Stream C-ABD	0.5	6.37	0.18	A		0.4	3.63	0.14	A	

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	08/03/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PBA\sleake
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Ref Sensitivity	AM	FLAT	07:45	08:45	60	15	✓
D2	2022 Ref Sensitivity	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

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

2022 Ref Sensitivity, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	A4260 / B4027	Right-Left Stagger	Two-way	9.39	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	Stream B-AD

Arms

Arms

Arm	Name	Description	Arm type
A	A4260 Banbury Road (N)		Major
B	B4027 (E)		Minor
C	A4260 Banbury Road (S)		Major
D	B4027 (W)		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A4260 Banbury Road (N)	8.85			250.0	✓	0.00
C - A4260 Banbury Road (S)	8.85			250.0	✓	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	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 - B4027 (E)	One lane plus flare	10.00	7.68	4.93	3.62	2.92	✓	2.00	36	58
D - B4027 (W)	One lane plus flare	10.00	9.83	5.30	3.49	3.02	✓	2.00	43	42

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	719	-	-	-	0.244	0.244	0.244	-	0.244	-	-
1	B-AD	577	0.092	0.233	-	-	-	0.146	0.332	0.146	0.092	0.233
1	B-C	687	0.092	0.233	-	-	-	-	-	-	0.092	0.233
1	C-B	719	0.244	0.244	-	-	-	-	-	-	0.244	0.244
1	D-A	675	-	-	-	0.229	0.091	0.229	-	0.091	-	-
1	D-BC	579	0.147	0.147	0.334	0.234	0.092	0.234	-	0.092	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Ref Sensitivity	AM	FLAT	07:45	08:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A4260 Banbury Road (N)		FLAT	✓	971	100.000
B - B4027 (E)		FLAT	✓	273	100.000
C - A4260 Banbury Road (S)		FLAT	✓	444	100.000
D - B4027 (W)		FLAT	✓	225	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A4260 Banbury Road (N)	B - B4027 (E)	C - A4260 Banbury Road (S)	D - B4027 (W)
From	A - A4260 Banbury Road (N)	0	143	824	4
	B - B4027 (E)	22	0	113	138
	C - A4260 Banbury Road (S)	322	55	0	67
	D - B4027 (W)	2	188	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A4260 Banbury Road (N)	B - B4027 (E)	C - A4260 Banbury Road (S)	D - B4027 (W)
From	A - A4260 Banbury Road (N)	0	5	6	0
	B - B4027 (E)	10	0	3	3
	C - A4260 Banbury Road (S)	1	6	0	3
	D - B4027 (W)	50	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.38	19.24	0.6	C	113	113
B-AD	0.66	43.67	1.9	E	160	160
A-BCD	0.02	3.01	0.0	A	19	19
A-B					141	141
A-C					811	811
D-A	0.01	17.39	0.0	C	2	2
D-BC	0.69	36.53	2.2	E	223	223
C-ABD	0.18	6.37	0.5	A	126	126
C-D					55	55
C-A					263	263

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	113	28	314	0.359	111	0.0	0.5	17.510	C
B-AD	160	40	243	0.658	153	0.0	1.7	37.629	E
ABCD	19	5	1218	0.016	19	0.0	0.0	3.002	A
A-B	141	35			141				
A-C	811	203			811				
D-A	2	0.50	225	0.009	2	0.0	0.0	16.134	C
D-BC	223	56	322	0.692	215	0.0	2.0	31.666	D
C-ABD	125	31	694	0.180	123	0.0	0.4	6.310	A
C-D	55	14			55				
C-A	264	66			264				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	113	28	301	0.375	113	0.5	0.6	19.074	C
B-AD	160	40	242	0.661	160	1.7	1.8	43.096	E
ABCD	20	5	1217	0.016	20	0.0	0.0	3.007	A
A-B	141	35			141				
A-C	811	203			811				
D-A	2	0.50	210	0.010	2	0.0	0.0	17.284	C
D-BC	223	56	321	0.695	222	2.0	2.1	36.105	E
C-ABD	127	32	693	0.183	127	0.4	0.4	6.370	A
C-D	55	14			55				
C-A	263	66			263				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	113	28	300	0.376	113	0.6	0.6	19.196	C
B-AD	160	40	242	0.661	160	1.8	1.9	43.516	E
ABCD	20	5	1217	0.016	20	0.0	0.0	3.005	A
A-B	141	35			141				
A-C	811	203			811				
D-A	2	0.50	209	0.010	2	0.0	0.0	17.363	C
D-BC	223	56	321	0.695	223	2.1	2.2	36.415	E
C-ABD	127	32	693	0.183	127	0.4	0.5	6.374	A
C-D	55	14			55				
C-A	263	66			263				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	113	28	300	0.377	113	0.6	0.6	19.236	C
B-AD	160	40	242	0.662	160	1.9	1.9	43.667	E
ABCD	20	5	1217	0.016	20	0.0	0.0	3.007	A
A-B	141	35			141				
A-C	811	203			811				
D-A	2	0.50	209	0.010	2	0.0	0.0	17.392	C
D-BC	223	56	321	0.695	223	2.2	2.2	36.529	E
C-ABD	127	32	693	0.183	127	0.5	0.5	6.374	A
C-D	55	14			55				
C-A	263	66			263				

2022 Ref Sensitivity, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	A4260 / B4027	Right-Left Stagger	Two-way	3.62	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	Stream D-BC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Ref Sensitivity	PM	FLAT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A4260 Banbury Road (N)		FLAT	✓	371	100.000
B - B4027 (E)		FLAT	✓	136	100.000
C - A4260 Banbury Road (S)		FLAT	✓	887	100.000
D - B4027 (W)		FLAT	✓	132	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A4260 Banbury Road (N)	B - B4027 (E)	C - A4260 Banbury Road (S)	D - B4027 (W)
From	A - A4260 Banbury Road (N)	0	31	339	1
	B - B4027 (E)	64	0	5	67
	C - A4260 Banbury Road (S)	758	45	0	84
	D - B4027 (W)	1	100	31	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A4260 Banbury Road (N)	B - B4027 (E)	C - A4260 Banbury Road (S)	D - B4027 (W)
From	A - A4260 Banbury Road (N)	0	7	1	0
	B - B4027 (E)	2	0	0	2
	C - A4260 Banbury Road (S)	0	0	0	1
	D - B4027 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	7.62	0.0	A	5	5
B-AD	0.39	17.59	0.6	C	131	131
A-BCD	0.00	4.82	0.0	A	2	2
A-B					31	31
A-C					338	338
D-A	0.00	8.83	0.0	A	1	1
D-BC	0.41	19.40	0.7	C	131	131
C-ABD	0.14	3.63	0.4	A	166	166
C-D					72	72
C-A					649	649

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	5	1	479	0.010	5	0.0	0.0	7.586	A
B-AD	131	33	336	0.390	129	0.0	0.6	17.137	C
A-BCD	2	0.49	750	0.003	2	0.0	0.0	4.810	A
A-B	31	8			31				
A-C	338	85			338				
D-A	1	0.25	412	0.002	0.99	0.0	0.0	8.768	A
D-BC	131	33	317	0.413	128	0.0	0.7	18.807	C
C-ABD	165	41	1158	0.142	163	0.0	0.4	3.618	A
C-D	72	18			72				
C-A	650	163			650				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	5	1	477	0.010	5	0.0	0.0	7.624	A
B-AD	131	33	336	0.390	131	0.6	0.6	17.571	C
A-BCD	2	0.50	750	0.003	2	0.0	0.0	4.816	A
A-B	31	8			31				
A-C	338	85			338				
D-A	1	0.25	409	0.002	1.00	0.0	0.0	8.828	A
D-BC	131	33	317	0.414	131	0.7	0.7	19.384	C
C-ABD	166	42	1159	0.143	166	0.4	0.4	3.631	A
C-D	72	18			72				
C-A	649	162			649				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	5	1	477	0.010	5	0.0	0.0	7.624	A
B-AD	131	33	336	0.390	131	0.6	0.6	17.582	C
ABCD	2	0.50	750	0.003	2	0.0	0.0	4.817	A
AB	31	8			31				
AC	338	85			338				
D-A	1	0.25	409	0.002	1	0.0	0.0	8.829	A
D-BC	131	33	317	0.414	131	0.7	0.7	19.396	C
C-ABD	166	42	1159	0.143	166	0.4	0.4	3.631	A
C-D	72	18			72				
C-A	649	162			649				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	5	1	477	0.010	5	0.0	0.0	7.625	A
B-AD	131	33	336	0.390	131	0.6	0.6	17.588	C
ABCD	2	0.50	750	0.003	2	0.0	0.0	4.817	A
AB	31	8			31				
AC	338	85			338				
D-A	1	0.25	409	0.002	1	0.0	0.0	8.829	A
D-BC	131	33	316	0.414	131	0.7	0.7	19.401	C
C-ABD	166	42	1159	0.143	166	0.4	0.4	3.634	A
C-D	72	18			72				
C-A	649	162			649				