

Junctions 10										
ARCADY 10 - Roundabout Module										
Version: 10.1.1.1905										
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Filename: Rugby Road_Canberra Way.j10

Path: P:\2021\P21-390\T&T\Capacity Assessments\Junctions 10\5016 - Response to LCC

Report generation date: 25/04/2024 12:43:46

»2021, AM
»2021, PM
»2026, AM
»2026, PM
»2026 + Dev, AM
»2026 + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2021									
1 - Canberra Way	D1	0.2	12.31	0.17	B	D2	0.0	6.05	0.03	A
2 - B4109 Rugby Road South		0.6	3.50	0.38	A		1.6	5.35	0.62	A
3 - Three Pots Road		0.5	7.04	0.33	A		0.7	11.45	0.42	B
4 - B4109 Rugby Road North		2.1	6.21	0.68	A		0.8	3.41	0.44	A
	2026									
1 - Canberra Way	D3	0.2	14.80	0.19	B	D4	0.0	6.33	0.04	A
2 - B4109 Rugby Road South		0.9	4.12	0.47	A		2.4	7.05	0.71	A
3 - Three Pots Road		0.6	8.17	0.36	A		0.5	11.74	0.33	B
4 - B4109 Rugby Road North		2.8	7.49	0.74	A		0.9	3.59	0.47	A
	2026 + Dev									
1 - Canberra Way	D5	0.3	18.08	0.23	C	D6	0.0	6.44	0.04	A
2 - B4109 Rugby Road South		0.9	4.25	0.49	A		2.9	8.15	0.75	A
3 - Three Pots Road		0.6	8.54	0.38	A		0.6	13.84	0.38	B
4 - B4109 Rugby Road North		3.6	9.14	0.78	A		0.9	3.65	0.48	A

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

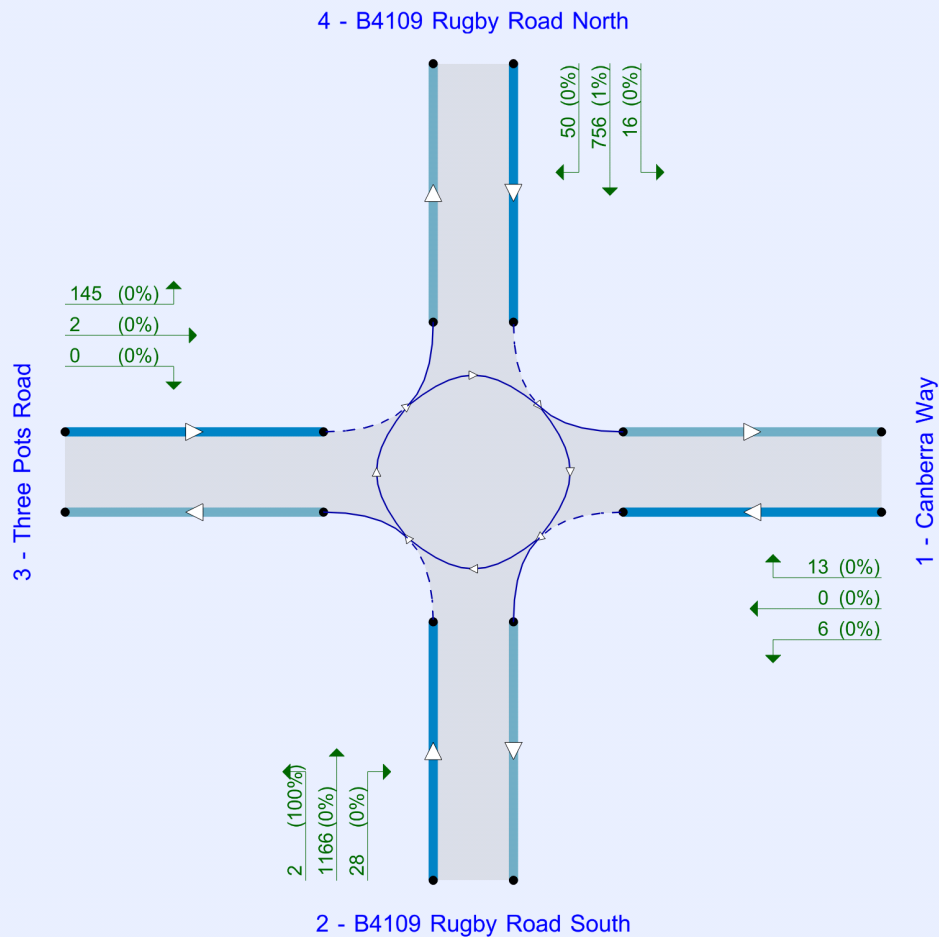
File summary

File Description

Title	B4109 Rugby Road / Canberra Way / Three Pots Road Roundabout
Location	
Site number	
Date	27/10/2023
Version	
Status	Existing
Identifier	
Client	Redrow Homes
Jobnumber	P21-390
Enumerator	
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	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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 segment length (min)	Run automatically
D1	2021	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026	AM	ONE HOUR	07:45	09:15	15	✓
D4	2026	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2026 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2021, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Canberra Way		
2	B4109 Rugby Road South		
3	Three Pots Road		
4	B4109 Rugby Road North		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Canberra Way	2.44	4.80	6.3	10.8	38.0	27.0		
2 - B4109 Rugby Road South	4.00	7.51	10.5	27.1	38.0	20.0		
3 - Three Pots Road	3.15	4.00	8.9	10.0	38.0	27.5		
4 - B4109 Rugby Road North	4.00	7.80	12.6	60.0	38.0	18.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Canberra Way	0.502	1030
2 - B4109 Rugby Road South	0.682	1808
3 - Three Pots Road	0.514	1105
4 - B4109 Rugby Road North	0.715	1931

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	53	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	570	100.000
3 - Three Pots Road		ONE HOUR	✓	232	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	1125	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	26	3	24
	2 - B4109 Rugby Road South	5	0	2	563
	3 - Three Pots Road	2	109	0	121
	4 - B4109 Rugby Road North	19	963	143	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	1
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.17	12.31	0.2	B	49	73
2 - B4109 Rugby Road South	0.38	3.50	0.6	A	523	785
3 - Three Pots Road	0.33	7.04	0.5	A	213	319
4 - B4109 Rugby Road North	0.68	6.21	2.1	A	1032	1548

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	911	567	0.070	40	19	0.0	0.1	6.819	A
2 - B4109 Rugby Road South	429	107	127	1696	0.253	428	823	0.0	0.3	2.836	A
3 - Three Pots Road	175	44	444	875	0.200	174	111	0.0	0.2	5.128	A
4 - B4109 Rugby Road North	847	212	87	1846	0.459	844	531	0.0	0.8	3.578	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1091	476	0.100	48	23	0.1	0.1	8.396	A
2 - B4109 Rugby Road South	512	128	153	1679	0.305	512	986	0.3	0.4	3.086	A
3 - Three Pots Road	209	52	532	829	0.252	208	133	0.2	0.3	5.795	A
4 - B4109 Rugby Road North	1011	253	104	1834	0.551	1010	636	0.8	1.2	4.359	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1334	353	0.166	58	29	0.1	0.2	12.210	B
2 - B4109 Rugby Road South	628	157	187	1655	0.379	627	1205	0.4	0.6	3.499	A
3 - Three Pots Road	255	64	651	767	0.333	255	162	0.3	0.5	7.015	A
4 - B4109 Rugby Road North	1239	310	127	1818	0.681	1235	778	1.2	2.1	6.142	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1338	351	0.166	58	29	0.2	0.2	12.314	B
2 - B4109 Rugby Road South	628	157	187	1655	0.379	628	1209	0.6	0.6	3.503	A
3 - Three Pots Road	255	64	652	767	0.333	255	163	0.5	0.5	7.038	A
4 - B4109 Rugby Road North	1239	310	128	1818	0.681	1239	780	2.1	2.1	6.215	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1096	473	0.101	48	23	0.2	0.1	8.470	A
2 - B4109 Rugby Road South	512	128	153	1678	0.305	513	991	0.6	0.4	3.091	A
3 - Three Pots Road	209	52	533	829	0.252	209	134	0.5	0.3	5.817	A
4 - B4109 Rugby Road North	1011	253	105	1834	0.551	1015	638	2.1	1.2	4.413	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	916	565	0.071	40	20	0.1	0.1	6.867	A
2 - B4109 Rugby Road South	429	107	128	1695	0.253	430	828	0.4	0.3	2.844	A
3 - Three Pots Road	175	44	446	874	0.200	175	112	0.3	0.3	5.154	A
4 - B4109 Rugby Road North	847	212	88	1846	0.459	849	534	1.2	0.9	3.613	A

2021, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	5.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	19	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	987	100.000
3 - Three Pots Road		ONE HOUR	✓	205	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	756	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	From				
	1 - Canberra Way	0	6	0	13
	2 - B4109 Rugby Road South	28	0	2	957
	3 - Three Pots Road	2	2	0	201
	4 - B4109 Rugby Road North	16	694	46	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	0
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.03	6.05	0.0	A	17	26
2 - B4109 Rugby Road South	0.62	5.35	1.6	A	906	1359
3 - Three Pots Road	0.42	11.45	0.7	B	188	282
4 - B4109 Rugby Road North	0.44	3.41	0.8	A	694	1041

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	557	748	0.019	14	35	0.0	0.0	4.908	A
2 - B4109 Rugby Road South	743	186	44	1774	0.419	740	527	0.0	0.7	3.471	A
3 - Three Pots Road	154	39	748	720	0.214	153	36	0.0	0.3	6.337	A
4 - B4109 Rugby Road North	569	142	24	1897	0.300	567	878	0.0	0.4	2.704	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	667	692	0.025	17	41	0.0	0.0	5.332	A
2 - B4109 Rugby Road South	887	222	53	1768	0.502	886	631	0.7	1.0	4.077	A
3 - Three Pots Road	184	46	896	644	0.286	184	43	0.3	0.4	7.807	A
4 - B4109 Rugby Road North	680	170	29	1893	0.359	679	1051	0.4	0.6	2.962	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	816	616	0.034	21	51	0.0	0.0	6.044	A
2 - B4109 Rugby Road South	1087	272	65	1760	0.617	1084	772	1.0	1.6	5.308	A
3 - Three Pots Road	226	56	1096	541	0.417	224	53	0.4	0.7	11.319	B
4 - B4109 Rugby Road North	832	208	35	1889	0.441	831	1286	0.6	0.8	3.401	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	817	616	0.034	21	51	0.0	0.0	6.049	A
2 - B4109 Rugby Road South	1087	272	65	1760	0.617	1087	773	1.6	1.6	5.346	A
3 - Three Pots Road	226	56	1099	540	0.418	226	53	0.7	0.7	11.445	B
4 - B4109 Rugby Road North	832	208	35	1889	0.441	832	1289	0.8	0.8	3.406	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	668	691	0.025	17	41	0.0	0.0	5.340	A
2 - B4109 Rugby Road South	887	222	53	1768	0.502	890	632	1.6	1.0	4.109	A
3 - Three Pots Road	184	46	900	643	0.287	186	43	0.7	0.4	7.896	A
4 - B4109 Rugby Road North	680	170	29	1893	0.359	681	1056	0.8	0.6	2.972	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	559	747	0.019	14	35	0.0	0.0	4.917	A
2 - B4109 Rugby Road South	743	186	44	1774	0.419	744	529	1.0	0.7	3.502	A
3 - Three Pots Road	154	39	753	718	0.215	155	36	0.4	0.3	6.397	A
4 - B4109 Rugby Road North	569	142	24	1897	0.300	570	883	0.6	0.4	2.715	A

2026, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	6.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	53	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	710	100.000
3 - Three Pots Road		ONE HOUR	✓	224	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	1221	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	From				
	1 - Canberra Way	0	26	3	24
	2 - B4109 Rugby Road South	5	0	3	702
	3 - Three Pots Road	2	101	0	121
	4 - B4109 Rugby Road North	19	1062	140	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	1
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.19	14.80	0.2	B	49	73
2 - B4109 Rugby Road South	0.47	4.12	0.9	A	652	977
3 - Three Pots Road	0.36	8.17	0.6	A	206	308
4 - B4109 Rugby Road North	0.74	7.49	2.8	A	1120	1681

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	977	534	0.075	40	19	0.0	0.1	7.276	A
2 - B4109 Rugby Road South	535	134	125	1696	0.315	533	891	0.0	0.5	3.084	A
3 - Three Pots Road	169	42	548	821	0.206	168	109	0.0	0.3	5.514	A
4 - B4109 Rugby Road North	919	230	81	1851	0.497	915	635	0.0	1.0	3.831	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1169	436	0.109	47	23	0.1	0.1	9.257	A
2 - B4109 Rugby Road South	638	160	150	1679	0.380	638	1067	0.5	0.6	3.454	A
3 - Three Pots Road	201	50	656	764	0.263	201	131	0.3	0.4	6.385	A
4 - B4109 Rugby Road North	1098	274	97	1840	0.597	1096	761	1.0	1.5	4.826	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1429	304	0.192	58	29	0.1	0.2	14.591	B
2 - B4109 Rugby Road South	782	195	183	1656	0.472	781	1304	0.6	0.9	4.105	A
3 - Three Pots Road	247	62	804	688	0.358	246	160	0.4	0.6	8.127	A
4 - B4109 Rugby Road North	1344	336	119	1824	0.737	1339	931	1.5	2.7	7.344	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1434	302	0.193	58	29	0.2	0.2	14.797	B
2 - B4109 Rugby Road South	782	195	184	1656	0.472	782	1309	0.9	0.9	4.117	A
3 - Three Pots Road	247	62	805	687	0.359	247	161	0.6	0.6	8.168	A
4 - B4109 Rugby Road North	1344	336	119	1824	0.737	1344	933	2.7	2.8	7.492	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1177	432	0.110	48	23	0.2	0.1	9.377	A
2 - B4109 Rugby Road South	638	160	151	1679	0.380	639	1074	0.9	0.6	3.469	A
3 - Three Pots Road	201	50	658	763	0.264	202	132	0.6	0.4	6.422	A
4 - B4109 Rugby Road North	1098	274	97	1839	0.597	1103	763	2.8	1.5	4.919	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	983	531	0.075	40	20	0.1	0.1	7.338	A
2 - B4109 Rugby Road South	535	134	126	1696	0.315	535	897	0.6	0.5	3.102	A
3 - Three Pots Road	169	42	551	819	0.206	169	110	0.4	0.3	5.542	A
4 - B4109 Rugby Road North	919	230	81	1851	0.497	921	639	1.5	1.0	3.881	A

2026, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	6.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	19	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	1135	100.000
3 - Three Pots Road		ONE HOUR	✓	136	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	806	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	From				
	1 - Canberra Way	0	6	0	13
	2 - B4109 Rugby Road South	28	0	2	1105
	3 - Three Pots Road	2	0	0	134
	4 - B4109 Rugby Road North	16	743	47	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	0
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.04	6.33	0.0	A	17	26
2 - B4109 Rugby Road South	0.71	7.05	2.4	A	1041	1562
3 - Three Pots Road	0.33	11.74	0.5	B	125	187
4 - B4109 Rugby Road North	0.47	3.59	0.9	A	740	1109

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	593	729	0.020	14	34	0.0	0.0	5.033	A
2 - B4109 Rugby Road South	854	214	45	1774	0.482	851	562	0.0	0.9	3.884	A
3 - Three Pots Road	102	26	859	663	0.154	102	37	0.0	0.2	6.400	A
4 - B4109 Rugby Road North	607	152	22	1898	0.320	605	938	0.0	0.5	2.781	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	710	670	0.025	17	41	0.0	0.0	5.510	A
2 - B4109 Rugby Road South	1020	255	54	1768	0.577	1019	673	0.9	1.3	4.794	A
3 - Three Pots Road	122	31	1029	576	0.212	122	44	0.2	0.3	7.918	A
4 - B4109 Rugby Road North	725	181	27	1895	0.382	724	1124	0.5	0.6	3.073	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	869	590	0.035	21	51	0.0	0.0	6.329	A
2 - B4109 Rugby Road South	1250	312	66	1760	0.710	1246	824	1.3	2.4	6.943	A
3 - Three Pots Road	150	37	1258	458	0.327	149	54	0.3	0.5	11.601	B
4 - B4109 Rugby Road North	887	222	33	1890	0.469	886	1374	0.6	0.9	3.582	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	870	589	0.036	21	51	0.0	0.0	6.334	A
2 - B4109 Rugby Road South	1250	312	66	1760	0.710	1250	825	2.4	2.4	7.052	A
3 - Three Pots Road	150	37	1262	456	0.328	150	54	0.5	0.5	11.740	B
4 - B4109 Rugby Road North	887	222	33	1890	0.469	887	1378	0.9	0.9	3.588	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	711	670	0.026	17	41	0.0	0.0	5.520	A
2 - B4109 Rugby Road South	1020	255	54	1768	0.577	1024	674	2.4	1.4	4.870	A
3 - Three Pots Road	122	31	1034	573	0.213	123	44	0.5	0.3	8.012	A
4 - B4109 Rugby Road North	725	181	27	1895	0.382	726	1130	0.9	0.6	3.081	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	595	728	0.020	14	35	0.0	0.0	5.044	A
2 - B4109 Rugby Road South	854	214	45	1774	0.482	856	564	1.4	0.9	3.930	A
3 - Three Pots Road	102	26	865	661	0.155	103	37	0.3	0.2	6.459	A
4 - B4109 Rugby Road North	607	152	23	1898	0.320	607	945	0.6	0.5	2.790	A

2026 + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	7.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	53	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	726	100.000
3 - Three Pots Road		ONE HOUR	✓	233	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	1300	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	From				
	1 - Canberra Way	0	26	3	24
	2 - B4109 Rugby Road South	5	0	3	718
	3 - Three Pots Road	2	101	0	130
	4 - B4109 Rugby Road North	19	1127	154	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	1
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.23	18.08	0.3	C	49	73
2 - B4109 Rugby Road South	0.49	4.25	0.9	A	666	999
3 - Three Pots Road	0.38	8.54	0.6	A	214	321
4 - B4109 Rugby Road North	0.78	9.14	3.6	A	1193	1789

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	1036	504	0.079	40	19	0.0	0.1	7.745	A
2 - B4109 Rugby Road South	547	137	136	1689	0.324	545	940	0.0	0.5	3.139	A
3 - Three Pots Road	175	44	560	814	0.215	174	120	0.0	0.3	5.616	A
4 - B4109 Rugby Road North	979	245	81	1851	0.529	974	654	0.0	1.1	4.086	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1240	400	0.119	47	23	0.1	0.1	10.197	B
2 - B4109 Rugby Road South	653	163	162	1671	0.391	652	1125	0.5	0.6	3.532	A
3 - Three Pots Road	209	52	671	757	0.277	209	144	0.3	0.4	6.560	A
4 - B4109 Rugby Road North	1169	292	97	1840	0.635	1166	783	1.1	1.7	5.327	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1514	261	0.224	58	29	0.1	0.3	17.664	C
2 - B4109 Rugby Road South	799	200	198	1646	0.486	798	1374	0.6	0.9	4.239	A
3 - Three Pots Road	257	64	821	679	0.378	256	175	0.4	0.6	8.487	A
4 - B4109 Rugby Road North	1431	358	119	1824	0.785	1424	958	1.7	3.5	8.843	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	58	15	1521	257	0.227	58	29	0.3	0.3	18.079	C
2 - B4109 Rugby Road South	799	200	199	1645	0.486	799	1380	0.9	0.9	4.254	A
3 - Three Pots Road	257	64	822	678	0.378	257	176	0.6	0.6	8.537	A
4 - B4109 Rugby Road North	1431	358	119	1824	0.785	1431	960	3.5	3.6	9.139	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	48	12	1250	395	0.121	48	23	0.3	0.1	10.393	B
2 - B4109 Rugby Road South	653	163	164	1670	0.391	654	1134	0.9	0.6	3.549	A
3 - Three Pots Road	209	52	673	756	0.277	210	145	0.6	0.4	6.611	A
4 - B4109 Rugby Road North	1169	292	97	1839	0.635	1176	786	3.6	1.8	5.483	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	40	10	1043	500	0.080	40	20	0.1	0.1	7.827	A
2 - B4109 Rugby Road South	547	137	137	1689	0.324	547	947	0.6	0.5	3.155	A
3 - Three Pots Road	175	44	563	813	0.216	176	121	0.4	0.3	5.654	A
4 - B4109 Rugby Road North	979	245	82	1850	0.529	981	657	1.8	1.1	4.153	A

2026 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rugby Road / Canberra Way	Standard Roundabout		1, 2, 3, 4	6.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.82	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Canberra Way		ONE HOUR	✓	19	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	1196	100.000
3 - Three Pots Road		ONE HOUR	✓	147	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	822	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
	From				
	1 - Canberra Way	0	6	0	13
	2 - B4109 Rugby Road South	28	0	2	1166
	3 - Three Pots Road	2	0	0	145
	4 - B4109 Rugby Road North	16	756	50	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
		1 - Canberra Way	2 - B4109 Rugby Road South	3 - Three Pots Road	4 - B4109 Rugby Road North
From	1 - Canberra Way	0	0	0	0
	2 - B4109 Rugby Road South	0	0	100	0
	3 - Three Pots Road	0	0	0	0
	4 - B4109 Rugby Road North	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Canberra Way	0.04	6.44	0.0	A	17	26
2 - B4109 Rugby Road South	0.75	8.15	2.9	A	1097	1646
3 - Three Pots Road	0.38	13.84	0.6	B	135	202
4 - B4109 Rugby Road North	0.48	3.65	0.9	A	754	1131

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	605	723	0.020	14	34	0.0	0.0	5.076	A
2 - B4109 Rugby Road South	900	225	47	1773	0.508	896	572	0.0	1.0	4.089	A
3 - Three Pots Road	111	28	905	640	0.173	110	39	0.0	0.2	6.781	A
4 - B4109 Rugby Road North	619	155	22	1898	0.326	617	992	0.0	0.5	2.807	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	724	663	0.026	17	41	0.0	0.0	5.572	A
2 - B4109 Rugby Road South	1075	269	57	1766	0.609	1073	684	1.0	1.5	5.177	A
3 - Three Pots Road	132	33	1083	548	0.241	132	47	0.2	0.3	8.635	A
4 - B4109 Rugby Road North	739	185	27	1895	0.390	738	1188	0.5	0.6	3.111	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	886	581	0.036	21	50	0.0	0.0	6.429	A
2 - B4109 Rugby Road South	1317	329	69	1758	0.749	1311	838	1.5	2.9	7.970	A
3 - Three Pots Road	162	40	1323	424	0.381	161	57	0.3	0.6	13.588	B
4 - B4109 Rugby Road North	905	226	33	1890	0.479	904	1451	0.6	0.9	3.646	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	21	5	887	580	0.036	21	51	0.0	0.0	6.435	A
2 - B4109 Rugby Road South	1317	329	69	1758	0.749	1317	839	2.9	2.9	8.154	A
3 - Three Pots Road	162	40	1329	422	0.384	162	57	0.6	0.6	13.840	B
4 - B4109 Rugby Road North	905	226	33	1890	0.479	905	1458	0.9	0.9	3.652	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	17	4	726	662	0.026	17	42	0.0	0.0	5.582	A
2 - B4109 Rugby Road South	1075	269	57	1766	0.609	1081	686	2.9	1.6	5.293	A
3 - Three Pots Road	132	33	1091	544	0.243	133	47	0.6	0.3	8.783	A
4 - B4109 Rugby Road North	739	185	27	1895	0.390	740	1197	0.9	0.6	3.120	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Canberra Way	14	4	607	722	0.020	14	35	0.0	0.0	5.087	A
2 - B4109 Rugby Road South	900	225	47	1772	0.508	903	574	1.6	1.0	4.149	A
3 - Three Pots Road	111	28	911	637	0.174	111	39	0.3	0.2	6.856	A
4 - B4109 Rugby Road North	619	155	23	1898	0.326	619	999	0.6	0.5	2.817	A