

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Junction - 2030 Future							
1 - Charles Watts Way	1.7	5.56	0.61	4.68	0.7	3.27	0.40	7.94
2 - Turnpike Way	0.7	9.43	0.43		0.2	4.04	0.14	
3 - Charles Watts Way	1.1	3.72	0.52		5.9	11.70	0.86	
4 - Tollbar Way	0.8	3.23	0.43		1.0	4.27	0.49	
	Existing Junction - 2030 + Com							
1 - Charles Watts Way	3.2	10.46	0.76	8.58	0.8	4.09	0.45	8.89
2 - Turnpike Way	2.6	32.51	0.73		1.3	9.85	0.57	
3 - Charles Watts Way	1.9	5.03	0.65		5.9	11.75	0.86	
4 - Tollbar Way	1.8	5.12	0.64		2.2	6.91	0.68	
	Existing Junction - 2030 + Com + Dev							
1 - Charles Watts Way	3.8	11.89	0.79	9.72	0.9	4.18	0.46	9.81
2 - Turnpike Way	3.3	41.78	0.79		1.3	10.16	0.57	
3 - Charles Watts Way	2.0	5.13	0.66		6.9	13.42	0.88	
4 - Tollbar Way	1.8	5.20	0.64		2.3	7.35	0.70	
	Existing Junction - 2036 Future							
1 - Charles Watts Way	2.0	6.25	0.65	5.19	0.7	3.44	0.42	10.57
2 - Turnpike Way	0.9	11.19	0.48		0.2	4.21	0.14	
3 - Charles Watts Way	1.3	3.97	0.55		8.5	16.43	0.90	
4 - Tollbar Way	0.9	3.42	0.46		1.1	4.70	0.53	
	Existing Junction - 2036 + Com							
1 - Charles Watts Way	4.2	13.20	0.81	11.89	1.0	4.60	0.48	12.79
2 - Turnpike Way	5.0	62.74	0.87		1.4	10.91	0.59	
3 - Charles Watts Way	2.2	5.47	0.68		9.9	19.17	0.90	
4 - Tollbar Way	2.0	5.61	0.67		2.7	8.34	0.72	
	Existing Junction - 2036 + Com + Dev							
1 - Charles Watts Way	5.1	15.53	0.84	14.67	1.0	4.45	0.49	13.21
2 - Turnpike Way	7.6	91.05	0.93		1.5	11.29	0.60	
3 - Charles Watts Way	2.2	5.58	0.68		10.4	19.81	0.92	
4 - Tollbar Way	2.0	5.71	0.67		2.8	8.71	0.74	

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	
Location	
Site number	
Date	31/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ARDENTCE\nottinghamlaptop
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2030 Future	AM	ONE HOUR	07:45	09:15	15
D2	2030 Future	PM	ONE HOUR	16:45	18:15	15
D3	2030 + Com	AM	ONE HOUR	07:45	09:15	15
D4	2030 + Com	PM	ONE HOUR	16:45	18:15	15
D5	2030 + Com + Dev	AM	ONE HOUR	07:45	09:15	15
D6	2030 + Com + Dev	PM	ONE HOUR	16:45	18:15	15
D7	2036 Future	AM	ONE HOUR	07:45	09:15	15
D8	2036 Future	PM	ONE HOUR	16:45	18:15	15
D9	2036 + Com	AM	ONE HOUR	07:45	09:15	15
D10	2036 + Com	PM	ONE HOUR	16:45	18:15	15
D11	2036 + Com + Dev	AM	ONE HOUR	07:45	09:15	15
D12	2036 + Com + Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Junction	100.000

Existing Junction - 2030 Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.68	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Charles Watts Way		
2	Turnpike Way		
3	Charles Watts Way		
4	Tollbar Way		

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 - Charles Watts Way	6.84	7.99	8.0	17.1	55.0	22.4		
2 - Turnpike Way	3.49	6.78	15.0	25.1	55.0	19.0		
3 - Charles Watts Way	7.88	8.30	36.0	28.4	55.0	46.6		
4 - Tollbar Way	7.34	8.31	18.0	14.6	55.0	13.8		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Charles Watts Way	0.708	2353
2 - Turnpike Way	0.602	1722
3 - Charles Watts Way	0.700	2402
4 - Tollbar Way	0.753	2569

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)
D1	2030 Future	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	986	100.000
2 - Turnpike Way		✓	262	100.000
3 - Charles Watts Way		✓	1014	100.000
4 - Tollbar Way		✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
From	1 - Charles Watts Way	7	45	806	128
	2 - Turnpike Way	52	0	68	142
	3 - Charles Watts Way	564	16	28	406
	4 - Tollbar Way	81	91	611	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
From	1 - Charles Watts Way	14	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	4	7
	4 - Tollbar Way	4	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.61	5.56	1.7	A
2 - Turnpike Way	0.43	9.43	0.7	A
3 - Charles Watts Way	0.52	3.72	1.1	A
4 - Tollbar Way	0.43	3.23	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	564	1953	0.380	740	0.6	3.114	A
2 - Turnpike Way	197	1190	1006	0.196	196	0.2	4.462	A
3 - Charles Watts Way	763	250	2227	0.343	761	0.6	2.607	A
4 - Tollbar Way	593	501	2192	0.271	592	0.4	2.316	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	886	675	1875	0.473	885	0.9	3.821	A
2 - Turnpike Way	236	1423	866	0.272	235	0.4	5.733	A
3 - Charles Watts Way	912	300	2192	0.416	911	0.8	2.983	A
4 - Tollbar Way	708	599	2118	0.334	708	0.5	2.631	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1086	826	1768	0.614	1083	1.6	5.505	A
2 - Turnpike Way	288	1742	674	0.428	287	0.7	9.312	A
3 - Charles Watts Way	1116	366	2145	0.520	1115	1.1	3.707	A
4 - Tollbar Way	868	733	2017	0.430	867	0.8	3.222	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1086	827	1767	0.614	1086	1.7	5.556	A
2 - Turnpike Way	288	1745	672	0.429	288	0.7	9.431	A
3 - Charles Watts Way	1116	368	2144	0.521	1116	1.1	3.719	A
4 - Tollbar Way	868	734	2016	0.430	868	0.8	3.230	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	886	676	1874	0.473	889	1.0	3.857	A
2 - Turnpike Way	236	1428	863	0.273	237	0.4	5.800	A
3 - Charles Watts Way	912	302	2191	0.416	913	0.8	2.996	A
4 - Tollbar Way	708	601	2117	0.335	709	0.5	2.640	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	566	1952	0.380	744	0.6	3.137	A
2 - Turnpike Way	197	1195	1003	0.197	198	0.2	4.498	A
3 - Charles Watts Way	763	252	2225	0.343	764	0.6	2.618	A
4 - Tollbar Way	593	503	2191	0.271	594	0.4	2.326	A

Existing Junction - 2030 Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.94	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)
D2	2030 Future	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	674	100.000
2 - Turnpike Way		✓	127	100.000
3 - Charles Watts Way		✓	1700	100.000
4 - Tollbar Way		✓	747	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	99	412	150
	2 - Turnpike Way	38	1	16	72
	3 - Charles Watts Way	942	53	33	672
	4 - Tollbar Way	209	109	420	9

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	3	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	3	0	0	2
	4 - Tollbar Way	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.40	3.27	0.7	A
2 - Turnpike Way	0.14	4.04	0.2	A
3 - Charles Watts Way	0.86	11.70	5.9	B
4 - Tollbar Way	0.49	4.27	1.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	507	469	2021	0.251	506	0.3	2.425	A
2 - Turnpike Way	96	779	1254	0.076	95	0.1	3.125	A
3 - Charles Watts Way	1280	212	2253	0.568	1275	1.3	3.749	A
4 - Tollbar Way	562	810	1959	0.287	561	0.4	2.597	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	606	561	1955	0.310	605	0.5	2.723	A
2 - Turnpike Way	114	931	1162	0.098	114	0.1	3.455	A
3 - Charles Watts Way	1528	254	2224	0.687	1525	2.2	5.249	A
4 - Tollbar Way	672	969	1840	0.365	671	0.6	3.109	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	686	1867	0.398	741	0.7	3.265	A
2 - Turnpike Way	140	1140	1036	0.135	140	0.2	4.036	A
3 - Charles Watts Way	1872	311	2184	0.857	1858	5.7	10.874	B
4 - Tollbar Way	822	1181	1680	0.490	821	1.0	4.223	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	688	1866	0.398	742	0.7	3.271	A
2 - Turnpike Way	140	1142	1035	0.135	140	0.2	4.043	A
3 - Charles Watts Way	1872	312	2184	0.857	1871	5.9	11.701	B
4 - Tollbar Way	822	1189	1674	0.491	822	1.0	4.268	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	606	564	1954	0.310	607	0.5	2.732	A
2 - Turnpike Way	114	934	1160	0.098	114	0.1	3.461	A
3 - Charles Watts Way	1528	255	2223	0.687	1543	2.3	5.527	A
4 - Tollbar Way	672	980	1831	0.367	673	0.6	3.141	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	507	471	2019	0.251	508	0.3	2.434	A
2 - Turnpike Way	96	782	1252	0.076	96	0.1	3.133	A
3 - Charles Watts Way	1280	213	2253	0.568	1284	1.4	3.819	A
4 - Tollbar Way	562	815	1955	0.288	563	0.4	2.612	A

Existing Junction - 2030 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.58	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)
D3	2030 + Com	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	1023	100.000
2 - Turnpike Way		✓	273	100.000
3 - Charles Watts Way		✓	1264	100.000
4 - Tollbar Way		✓	1148	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	7	46	842	128
	2 - Turnpike Way	51	0	80	142
	3 - Charles Watts Way	606	15	28	615
	4 - Tollbar Way	81	90	972	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	14	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	4	5
	4 - Tollbar Way	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.76	10.46	3.2	B
2 - Turnpike Way	0.73	32.51	2.6	D
3 - Charles Watts Way	0.65	5.03	1.9	A
4 - Tollbar Way	0.64	5.12	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	770	833	1763	0.437	767	0.8	3.792	A
2 - Turnpike Way	206	1487	828	0.248	204	0.3	5.793	A
3 - Charles Watts Way	952	249	2227	0.427	948	0.8	2.959	A
4 - Tollbar Way	864	530	2170	0.398	862	0.7	2.806	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	920	997	1647	0.558	918	1.3	5.180	A
2 - Turnpike Way	245	1779	652	0.377	244	0.6	8.857	A
3 - Charles Watts Way	1136	298	2193	0.518	1135	1.1	3.581	A
4 - Tollbar Way	1032	635	2091	0.494	1031	1.0	3.464	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1126	1219	1489	0.756	1119	3.1	10.039	B
2 - Turnpike Way	301	2173	415	0.725	293	2.4	28.355	D
3 - Charles Watts Way	1392	361	2149	0.648	1389	1.9	4.966	A
4 - Tollbar Way	1264	775	1985	0.637	1261	1.8	5.058	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1126	1222	1487	0.757	1126	3.2	10.460	B
2 - Turnpike Way	301	2182	409	0.734	300	2.6	32.509	D
3 - Charles Watts Way	1392	366	2146	0.649	1392	1.9	5.030	A
4 - Tollbar Way	1264	778	1983	0.637	1264	1.8	5.115	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	920	1001	1644	0.559	927	1.4	5.337	A
2 - Turnpike Way	245	1792	644	0.381	253	0.6	9.434	A
3 - Charles Watts Way	1136	306	2188	0.519	1139	1.1	3.632	A
4 - Tollbar Way	1032	639	2088	0.494	1035	1.0	3.506	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	770	837	1760	0.438	772	0.8	3.843	A
2 - Turnpike Way	206	1495	822	0.250	207	0.3	5.889	A
3 - Charles Watts Way	952	252	2226	0.428	953	0.8	2.986	A
4 - Tollbar Way	864	533	2168	0.399	866	0.7	2.830	A

Existing Junction - 2030 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.89	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)
D4	2030 + Com	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	674	100.000
2 - Turnpike Way		✓	433	100.000
3 - Charles Watts Way		✓	1700	100.000
4 - Tollbar Way		✓	1035	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	100	411	150
	2 - Turnpike Way	40	1	320	72
	3 - Charles Watts Way	951	53	33	663
	4 - Tollbar Way	209	105	712	9

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	3	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	3	0	0	2
	4 - Tollbar Way	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.45	4.09	0.8	A
2 - Turnpike Way	0.57	9.85	1.3	A
3 - Charles Watts Way	0.86	11.75	5.9	B
4 - Tollbar Way	0.68	6.91	2.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	507	685	1868	0.272	506	0.4	2.697	A
2 - Turnpike Way	326	997	1122	0.290	324	0.4	4.509	A
3 - Charles Watts Way	1280	214	2252	0.568	1275	1.3	3.753	A
4 - Tollbar Way	779	818	1953	0.399	777	0.7	3.083	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	606	819	1773	0.342	605	0.5	3.147	A
2 - Turnpike Way	389	1192	1005	0.387	388	0.6	5.842	A
3 - Charles Watts Way	1528	256	2223	0.688	1525	2.2	5.258	A
4 - Tollbar Way	930	979	1832	0.508	929	1.0	4.018	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	1001	1644	0.451	741	0.8	4.066	A
2 - Turnpike Way	477	1458	845	0.564	474	1.3	9.659	A
3 - Charles Watts Way	1872	313	2183	0.857	1858	5.7	10.909	B
4 - Tollbar Way	1140	1192	1671	0.682	1135	2.1	6.730	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	742	1005	1641	0.452	742	0.8	4.088	A
2 - Turnpike Way	477	1462	842	0.566	477	1.3	9.852	A
3 - Charles Watts Way	1872	314	2182	0.858	1871	5.9	11.754	B
4 - Tollbar Way	1140	1201	1665	0.684	1139	2.2	6.911	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	606	825	1769	0.343	607	0.5	3.167	A
2 - Turnpike Way	389	1198	1001	0.389	392	0.6	5.944	A
3 - Charles Watts Way	1528	257	2222	0.688	1543	2.3	5.542	A
4 - Tollbar Way	930	990	1824	0.510	935	1.1	4.110	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	507	689	1865	0.272	508	0.4	2.711	A
2 - Turnpike Way	326	1001	1120	0.291	327	0.4	4.555	A
3 - Charles Watts Way	1280	215	2251	0.568	1284	1.4	3.824	A
4 - Tollbar Way	779	824	1949	0.400	781	0.7	3.115	A

Existing Junction - 2030 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.72	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)
D5	2030 + Com + Dev	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	1063	100.000
2 - Turnpike Way		✓	273	100.000
3 - Charles Watts Way		✓	1278	100.000
4 - Tollbar Way		✓	1148	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	7	46	882	128
	2 - Turnpike Way	51	0	80	142
	3 - Charles Watts Way	620	15	28	615
	4 - Tollbar Way	81	90	972	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	14	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	4	5
	4 - Tollbar Way	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.79	11.89	3.8	B
2 - Turnpike Way	0.79	41.78	3.3	E
3 - Charles Watts Way	0.66	5.13	2.0	A
4 - Tollbar Way	0.64	5.20	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	800	833	1763	0.454	797	0.9	3.909	A
2 - Turnpike Way	206	1517	810	0.254	204	0.3	5.964	A
3 - Charles Watts Way	962	249	2227	0.432	959	0.8	2.984	A
4 - Tollbar Way	864	541	2162	0.400	862	0.7	2.823	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	956	997	1647	0.580	953	1.4	5.446	A
2 - Turnpike Way	245	1814	630	0.389	244	0.6	9.344	A
3 - Charles Watts Way	1149	298	2193	0.524	1147	1.2	3.624	A
4 - Tollbar Way	1032	647	2082	0.496	1031	1.0	3.495	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1170	1219	1490	0.786	1162	3.6	11.262	B
2 - Turnpike Way	301	2215	389	0.772	291	2.9	34.331	D
3 - Charles Watts Way	1407	359	2150	0.654	1404	2.0	5.060	A
4 - Tollbar Way	1264	790	1974	0.640	1261	1.8	5.137	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1170	1222	1487	0.787	1170	3.8	11.890	B
2 - Turnpike Way	301	2226	383	0.785	299	3.3	41.776	E
3 - Charles Watts Way	1407	366	2146	0.656	1407	2.0	5.133	A
4 - Tollbar Way	1264	794	1972	0.641	1264	1.8	5.198	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	956	1001	1644	0.581	965	1.5	5.652	A
2 - Turnpike Way	245	1829	621	0.395	256	0.7	10.170	B
3 - Charles Watts Way	1149	308	2186	0.526	1152	1.2	3.682	A
4 - Tollbar Way	1032	652	2078	0.497	1035	1.0	3.537	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	800	837	1760	0.455	803	0.9	3.968	A
2 - Turnpike Way	206	1526	804	0.256	207	0.3	6.070	A
3 - Charles Watts Way	962	252	2225	0.432	964	0.8	3.009	A
4 - Tollbar Way	864	544	2160	0.400	866	0.7	2.847	A

Existing Junction - 2030 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.81	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)
D6	2030 + Com + Dev	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	691	100.000
2 - Turnpike Way		✓	433	100.000
3 - Charles Watts Way		✓	1738	100.000
4 - Tollbar Way		✓	1035	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	100	428	150
	2 - Turnpike Way	40	1	320	72
	3 - Charles Watts Way	989	53	33	663
	4 - Tollbar Way	209	105	712	9

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	3	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	2	0	0	2
	4 - Tollbar Way	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.46	4.18	0.9	A
2 - Turnpike Way	0.57	10.16	1.3	B
3 - Charles Watts Way	0.88	13.42	6.9	B
4 - Tollbar Way	0.70	7.35	2.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	520	685	1868	0.279	519	0.4	2.723	A
2 - Turnpike Way	326	1009	1115	0.292	324	0.4	4.552	A
3 - Charles Watts Way	1308	214	2252	0.581	1303	1.4	3.842	A
4 - Tollbar Way	779	846	1932	0.403	776	0.7	3.141	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	621	819	1773	0.350	621	0.5	3.190	A
2 - Turnpike Way	389	1207	996	0.391	388	0.6	5.930	A
3 - Charles Watts Way	1562	256	2223	0.703	1559	2.4	5.491	A
4 - Tollbar Way	930	1012	1807	0.515	929	1.1	4.135	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	761	1001	1644	0.463	760	0.9	4.150	A
2 - Turnpike Way	477	1476	834	0.572	474	1.3	9.947	A
3 - Charles Watts Way	1914	313	2183	0.877	1897	6.5	12.175	B
4 - Tollbar Way	1140	1232	1641	0.694	1135	2.2	7.117	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	761	1005	1641	0.464	761	0.9	4.176	A
2 - Turnpike Way	477	1481	831	0.574	477	1.3	10.164	B
3 - Charles Watts Way	1914	314	2182	0.877	1912	6.9	13.421	B
4 - Tollbar Way	1140	1242	1634	0.697	1139	2.3	7.346	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	621	825	1768	0.351	622	0.6	3.214	A
2 - Turnpike Way	389	1214	992	0.393	392	0.7	6.038	A
3 - Charles Watts Way	1562	257	2222	0.703	1580	2.5	5.866	A
4 - Tollbar Way	930	1026	1797	0.518	935	1.1	4.243	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	520	689	1865	0.279	521	0.4	2.736	A
2 - Turnpike Way	326	1014	1112	0.293	327	0.4	4.599	A
3 - Charles Watts Way	1308	215	2251	0.581	1313	1.4	3.924	A
4 - Tollbar Way	779	853	1927	0.404	781	0.7	3.175	A

Existing Junction - 2036 Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.19	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)
D7	2036 Future	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	1032	100.000
2 - Turnpike Way		✓	273	100.000
3 - Charles Watts Way		✓	1060	100.000
4 - Tollbar Way		✓	824	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	8	47	843	134
	2 - Turnpike Way	54	0	71	148
	3 - Charles Watts Way	590	16	29	425
	4 - Tollbar Way	85	95	639	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	3	8
	4 - Tollbar Way	4	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.65	6.25	2.0	A
2 - Turnpike Way	0.48	11.19	0.9	B
3 - Charles Watts Way	0.55	3.97	1.3	A
4 - Tollbar Way	0.46	3.42	0.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	777	589	1936	0.401	774	0.7	3.252	A
2 - Turnpike Way	206	1244	973	0.211	204	0.3	4.699	A
3 - Charles Watts Way	798	262	2219	0.360	796	0.6	2.692	A
4 - Tollbar Way	620	523	2175	0.285	619	0.4	2.382	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	928	704	1854	0.500	926	1.0	4.077	A
2 - Turnpike Way	245	1489	826	0.297	245	0.4	6.217	A
3 - Charles Watts Way	953	313	2183	0.437	952	0.8	3.117	A
4 - Tollbar Way	741	626	2098	0.353	740	0.6	2.731	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1136	862	1742	0.652	1133	1.9	6.178	A
2 - Turnpike Way	301	1821	626	0.480	299	0.9	10.979	B
3 - Charles Watts Way	1167	382	2134	0.547	1165	1.3	3.954	A
4 - Tollbar Way	907	766	1992	0.455	906	0.9	3.413	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1136	863	1742	0.652	1136	2.0	6.255	A
2 - Turnpike Way	301	1825	624	0.482	301	0.9	11.191	B
3 - Charles Watts Way	1167	384	2133	0.547	1167	1.3	3.973	A
4 - Tollbar Way	907	767	1991	0.456	907	0.9	3.422	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	928	706	1853	0.501	931	1.1	4.126	A
2 - Turnpike Way	245	1495	823	0.298	247	0.4	6.312	A
3 - Charles Watts Way	953	316	2181	0.437	955	0.8	3.136	A
4 - Tollbar Way	741	628	2096	0.353	742	0.6	2.742	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	777	591	1934	0.402	778	0.7	3.280	A
2 - Turnpike Way	206	1250	970	0.212	206	0.3	4.742	A
3 - Charles Watts Way	798	263	2217	0.360	799	0.6	2.706	A
4 - Tollbar Way	620	525	2174	0.285	621	0.4	2.390	A

Existing Junction - 2036 Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.57	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.57	B

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)
D8	2036 Future	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	703	100.000
2 - Turnpike Way		✓	131	100.000
3 - Charles Watts Way		✓	1778	100.000
4 - Tollbar Way		✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	103	430	157
	2 - Turnpike Way	39	1	16	75
	3 - Charles Watts Way	985	56	35	702
	4 - Tollbar Way	219	114	439	10

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	3	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	3	0	0	2
	4 - Tollbar Way	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.42	3.44	0.7	A
2 - Turnpike Way	0.14	4.21	0.2	A
3 - Charles Watts Way	0.90	16.43	8.5	C
4 - Tollbar Way	0.53	4.70	1.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	529	492	2005	0.264	528	0.4	2.487	A
2 - Turnpike Way	99	814	1232	0.080	98	0.1	3.192	A
3 - Charles Watts Way	1339	221	2247	0.596	1333	1.5	4.009	A
4 - Tollbar Way	589	846	1932	0.305	587	0.4	2.699	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	632	588	1936	0.326	631	0.5	2.815	A
2 - Turnpike Way	118	974	1136	0.104	118	0.1	3.553	A
3 - Charles Watts Way	1598	265	2216	0.721	1594	2.6	5.883	A
4 - Tollbar Way	703	1012	1807	0.389	702	0.6	3.289	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	774	719	1844	0.420	773	0.7	3.430	A
2 - Turnpike Way	144	1191	1005	0.143	144	0.2	4.202	A
3 - Charles Watts Way	1958	324	2175	0.900	1936	8.0	14.325	B
4 - Tollbar Way	861	1230	1643	0.524	859	1.1	4.626	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	774	721	1842	0.420	774	0.7	3.440	A
2 - Turnpike Way	144	1193	1004	0.144	144	0.2	4.210	A
3 - Charles Watts Way	1958	325	2174	0.900	1955	8.5	16.433	C
4 - Tollbar Way	861	1242	1634	0.527	861	1.1	4.701	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	632	591	1934	0.327	633	0.5	2.829	A
2 - Turnpike Way	118	977	1134	0.104	118	0.1	3.562	A
3 - Charles Watts Way	1598	266	2216	0.721	1622	2.7	6.438	A
4 - Tollbar Way	703	1029	1794	0.392	705	0.7	3.341	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	529	494	2003	0.264	530	0.4	2.495	A
2 - Turnpike Way	99	817	1230	0.080	99	0.1	3.201	A
3 - Charles Watts Way	1339	222	2246	0.596	1343	1.5	4.105	A
4 - Tollbar Way	589	853	1927	0.306	590	0.4	2.719	A

Existing Junction - 2036 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.89	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.89	B

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)
D9	2036 + Com	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	1069	100.000
2 - Turnpike Way		✓	284	100.000
3 - Charles Watts Way		✓	1310	100.000
4 - Tollbar Way		✓	1184	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	8	48	879	134
	2 - Turnpike Way	53	0	83	148
	3 - Charles Watts Way	632	15	29	634
	4 - Tollbar Way	85	94	1000	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	3	5
	4 - Tollbar Way	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.81	13.20	4.2	B
2 - Turnpike Way	0.87	62.74	5.0	F
3 - Charles Watts Way	0.68	5.47	2.2	A
4 - Tollbar Way	0.67	5.61	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	805	858	1745	0.461	801	0.9	3.998	A
2 - Turnpike Way	214	1541	795	0.269	212	0.4	6.198	A
3 - Charles Watts Way	986	260	2219	0.444	983	0.8	3.060	A
4 - Tollbar Way	891	553	2153	0.414	889	0.7	2.904	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	961	1026	1626	0.591	959	1.5	5.655	A
2 - Turnpike Way	255	1844	613	0.417	254	0.7	10.050	B
3 - Charles Watts Way	1178	312	2184	0.539	1176	1.2	3.760	A
4 - Tollbar Way	1064	661	2071	0.514	1063	1.1	3.645	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1177	1255	1464	0.804	1167	4.0	12.346	B
2 - Turnpike Way	313	2250	368	0.849	299	4.1	45.564	E
3 - Charles Watts Way	1442	372	2141	0.674	1439	2.1	5.371	A
4 - Tollbar Way	1304	807	1962	0.665	1300	2.0	5.530	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1177	1258	1462	0.805	1176	4.2	13.205	B
2 - Turnpike Way	313	2262	361	0.866	309	5.0	62.742	F
3 - Charles Watts Way	1442	380	2135	0.675	1442	2.2	5.470	A
4 - Tollbar Way	1304	811	1959	0.666	1304	2.0	5.614	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	961	1031	1623	0.592	972	1.6	5.910	A
2 - Turnpike Way	255	1861	603	0.424	272	0.8	11.514	B
3 - Charles Watts Way	1178	326	2173	0.542	1181	1.3	3.836	A
4 - Tollbar Way	1064	668	2066	0.515	1068	1.1	3.698	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	805	862	1742	0.462	807	0.9	4.062	A
2 - Turnpike Way	214	1551	789	0.271	215	0.4	6.323	A
3 - Charles Watts Way	986	263	2217	0.445	988	0.8	3.088	A
4 - Tollbar Way	891	556	2150	0.415	893	0.7	2.928	A

Existing Junction - 2036 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.79	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.79	B

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)
D10	2036 + Com	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	703	100.000
2 - Turnpike Way		✓	437	100.000
3 - Charles Watts Way		✓	1778	100.000
4 - Tollbar Way		✓	1070	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	104	429	157
	2 - Turnpike Way	41	1	320	75
	3 - Charles Watts Way	994	56	35	693
	4 - Tollbar Way	219	110	731	10

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	13	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	25	0	0	16
	4 - Tollbar Way	2	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.48	4.60	1.0	A
2 - Turnpike Way	0.59	10.91	1.4	B
3 - Charles Watts Way	0.90	19.17	9.9	C
4 - Tollbar Way	0.72	8.34	2.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	529	707	1852	0.286	528	0.4	2.928	A
2 - Turnpike Way	329	1032	1101	0.299	327	0.4	4.647	A
3 - Charles Watts Way	1339	223	2246	0.596	1332	1.7	4.683	A
4 - Tollbar Way	806	854	1926	0.418	803	0.7	3.321	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	632	846	1754	0.360	631	0.6	3.459	A
2 - Turnpike Way	393	1234	980	0.401	392	0.7	6.127	A
3 - Charles Watts Way	1598	267	2215	0.722	1593	3.0	6.878	A
4 - Tollbar Way	962	1022	1800	0.534	960	1.2	4.445	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	774	1033	1622	0.477	773	1.0	4.567	A
2 - Turnpike Way	481	1508	815	0.591	478	1.4	10.625	B
3 - Charles Watts Way	1958	326	2174	0.901	1933	9.2	16.474	C
4 - Tollbar Way	1178	1240	1636	0.720	1172	2.6	7.981	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	774	1038	1618	0.478	774	1.0	4.602	A
2 - Turnpike Way	481	1514	811	0.593	481	1.4	10.905	B
3 - Charles Watts Way	1958	327	2173	0.901	1955	9.9	19.169	C
4 - Tollbar Way	1178	1253	1625	0.725	1178	2.7	8.342	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	632	854	1748	0.362	633	0.6	3.487	A
2 - Turnpike Way	393	1242	975	0.403	396	0.7	6.259	A
3 - Charles Watts Way	1598	268	2214	0.722	1625	3.2	7.640	A
4 - Tollbar Way	962	1041	1785	0.539	968	1.2	4.610	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	529	712	1849	0.286	530	0.4	2.948	A
2 - Turnpike Way	329	1037	1098	0.300	330	0.4	4.701	A
3 - Charles Watts Way	1339	224	2245	0.596	1344	1.8	4.820	A
4 - Tollbar Way	806	862	1920	0.420	807	0.8	3.366	A

Existing Junction - 2036 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	14.67	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.67	B

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)
D11	2036 + Com + Dev	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	1109	100.000
2 - Turnpike Way		✓	284	100.000
3 - Charles Watts Way		✓	1324	100.000
4 - Tollbar Way		✓	1184	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	8	48	919	134
	2 - Turnpike Way	53	0	83	148
	3 - Charles Watts Way	646	15	29	634
	4 - Tollbar Way	85	94	1000	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	0	6	2
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	6	0	3	5
	4 - Tollbar Way	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.84	15.53	5.1	C
2 - Turnpike Way	0.93	91.05	7.6	F
3 - Charles Watts Way	0.68	5.58	2.2	A
4 - Tollbar Way	0.67	5.71	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	835	858	1745	0.478	831	1.0	4.128	A
2 - Turnpike Way	214	1571	777	0.275	212	0.4	6.393	A
3 - Charles Watts Way	997	260	2220	0.449	993	0.9	3.084	A
4 - Tollbar Way	891	563	2145	0.416	888	0.7	2.923	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	997	1026	1626	0.613	994	1.6	5.971	A
2 - Turnpike Way	255	1879	591	0.432	254	0.7	10.679	B
3 - Charles Watts Way	1190	311	2184	0.545	1189	1.3	3.805	A
4 - Tollbar Way	1064	674	2062	0.516	1063	1.1	3.680	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1221	1255	1464	0.834	1208	4.8	14.158	B
2 - Turnpike Way	313	2291	344	0.910	293	5.6	58.708	F
3 - Charles Watts Way	1458	368	2144	0.680	1454	2.2	5.465	A
4 - Tollbar Way	1304	821	1951	0.668	1300	2.0	5.620	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	1221	1258	1462	0.835	1220	5.1	15.527	C
2 - Turnpike Way	313	2306	335	0.934	305	7.6	91.045	F
3 - Charles Watts Way	1458	377	2138	0.682	1458	2.2	5.577	A
4 - Tollbar Way	1304	825	1948	0.669	1304	2.0	5.709	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	997	1031	1623	0.614	1010	1.7	6.321	A
2 - Turnpike Way	255	1900	579	0.441	282	0.8	13.279	B
3 - Charles Watts Way	1190	334	2168	0.549	1194	1.3	3.910	A
4 - Tollbar Way	1064	682	2055	0.518	1068	1.1	3.742	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	835	862	1742	0.479	838	1.0	4.204	A
2 - Turnpike Way	214	1581	771	0.277	215	0.4	6.537	A
3 - Charles Watts Way	997	264	2217	0.450	998	0.9	3.116	A
4 - Tollbar Way	891	567	2142	0.416	893	0.7	2.947	A

Existing Junction - 2036 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Charles Watts Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	13.21	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.21	B

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)
D12	2036 + Com + Dev	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Charles Watts Way		✓	720	100.000
2 - Turnpike Way		✓	437	100.000
3 - Charles Watts Way		✓	1816	100.000
4 - Tollbar Way		✓	1070	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	13	104	446	157
	2 - Turnpike Way	41	1	320	75
	3 - Charles Watts Way	1032	56	35	693
	4 - Tollbar Way	219	110	731	10

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Charles Watts Way	2 - Turnpike Way	3 - Charles Watts Way	4 - Tollbar Way
	1 - Charles Watts Way	0	2	3	0
	2 - Turnpike Way	0	0	0	1
	3 - Charles Watts Way	2	0	0	2
	4 - Tollbar Way	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Charles Watts Way	0.49	4.45	1.0	A
2 - Turnpike Way	0.60	11.29	1.5	B
3 - Charles Watts Way	0.92	19.81	10.4	C
4 - Tollbar Way	0.74	8.71	2.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	542	707	1852	0.293	540	0.4	2.799	A
2 - Turnpike Way	329	1044	1094	0.301	327	0.4	4.694	A
3 - Charles Watts Way	1367	223	2246	0.609	1361	1.6	4.117	A
4 - Tollbar Way	806	883	1904	0.423	803	0.7	3.292	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	647	846	1754	0.369	647	0.6	3.319	A
2 - Turnpike Way	393	1249	970	0.405	392	0.7	6.224	A
3 - Charles Watts Way	1633	267	2215	0.737	1628	2.8	6.191	A
4 - Tollbar Way	962	1056	1774	0.542	960	1.2	4.456	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	793	1032	1622	0.489	791	1.0	4.418	A
2 - Turnpike Way	481	1527	804	0.599	478	1.5	10.975	B
3 - Charles Watts Way	1999	326	2174	0.920	1973	9.5	16.431	C
4 - Tollbar Way	1178	1280	1605	0.734	1172	2.7	8.279	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	793	1038	1618	0.490	793	1.0	4.455	A
2 - Turnpike Way	481	1532	800	0.601	481	1.5	11.287	B
3 - Charles Watts Way	1999	327	2173	0.920	1996	10.4	19.806	C
4 - Tollbar Way	1178	1295	1594	0.739	1178	2.8	8.710	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	647	854	1748	0.370	649	0.6	3.351	A
2 - Turnpike Way	393	1258	965	0.407	396	0.7	6.368	A
3 - Charles Watts Way	1633	268	2214	0.737	1662	2.9	6.993	A
4 - Tollbar Way	962	1078	1758	0.547	968	1.2	4.642	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Charles Watts Way	542	712	1849	0.293	543	0.4	2.818	A
2 - Turnpike Way	329	1050	1090	0.302	330	0.4	4.751	A
3 - Charles Watts Way	1367	224	2245	0.609	1373	1.6	4.231	A
4 - Tollbar Way	806	890	1899	0.424	807	0.7	3.339	A

Junction 11 - Winchester Road / Bubb Lane / Botley Road / Snakemoor Lane

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.0.1.1519		
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Filename: J11 - Botley Road-Winchester Road.j10

Path: Y:\ARDENT PROJECTS\2501890_A - Holly Tree Farm (02-167)\Transport\ARCADY\J11 Botley Road-Winchester Raod

Report generation date: 10/12/2025 19:54:23

«Existing Junction - 2036 + Com + Dev, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Junction - 2030 Future									
1 - Snakemoor Lane	D1	0.5	6.26	0.34	A	D2	1.3	10.93	0.57	B
2 - Winchester Road		2.1	10.18	0.67	B		1.4	8.27	0.58	A
3 - Bubb Lane		1.3	7.77	0.57	A		2.0	9.52	0.67	A
4 - Botley Road		1.7	11.03	0.63	B		2.4	13.95	0.71	B
	Existing Junction - 2030 + Com									
1 - Snakemoor Lane	D3	0.7	8.71	0.42	A	D4	2.8	24.29	0.75	C
2 - Winchester Road		70.2	191.95	1.11	F		2.8	13.47	0.74	B
3 - Bubb Lane		2.4	12.65	0.71	B		7.5	29.29	0.90	D
4 - Botley Road		7.6	36.72	0.90	E		28.8	116.66	1.04	F
	Existing Junction - 2030 + Com + Dev									
1 - Snakemoor Lane	D5	0.7	8.80	0.42	A	D6	2.9	24.81	0.75	C
2 - Winchester Road		80.8	217.38	1.13	F		2.9	13.76	0.75	B
3 - Bubb Lane		2.5	12.87	0.71	B		7.7	30.41	0.90	D
4 - Botley Road		8.1	38.85	0.91	E		36.5	140.84	1.06	F
	Existing Junction - 2036 Future									
1 - Snakemoor Lane	D7	0.6	6.58	0.36	A	D8	1.4	11.48	0.59	B
2 - Winchester Road		2.4	11.45	0.71	B		1.5	9.00	0.61	A
3 - Bubb Lane		1.5	8.39	0.60	A		2.3	10.59	0.70	B
4 - Botley Road		2.0	12.29	0.66	B		3.1	17.25	0.76	C
	Existing Junction - 2036 + Com									
1 - Snakemoor Lane	D9	0.8	9.30	0.44	A	D10	3.3	27.55	0.78	D
2 - Winchester Road		89.2	247.70	1.15	F		3.2	15.22	0.77	C
3 - Bubb Lane		2.7	13.68	0.73	B		10.3	39.36	0.93	E
4 - Botley Road		10.5	49.31	0.93	E		42.4	160.74	1.08	F
	Existing Junction - 2036 + Com + Dev									
1 - Snakemoor Lane	D11	0.8	9.39	0.45	A	D12	3.3	27.90	0.78	D
2 - Winchester Road		100.2	289.37	1.17	F		3.3	15.56	0.77	C
3 - Bubb Lane		2.7	13.94	0.73	B		10.8	41.12	0.93	E
4 - Botley Road		11.4	52.57	0.94	F		51.5	189.06	1.11	F

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	
Location	
Site number	
Date	31/10/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ARDENTCE\nottinghamlaptop
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Junction	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2036 + Com + Dev	PM	ONE HOUR	16:45	18:15	15

Existing Junction - 2036 + Com + 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	untitled	Standard Roundabout		1, 2, 3, 4	74.91	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	74.91	F

Arms

Arms

Arm	Name	Description	No give-way line
1	Snakemoor Lane		
2	Winchester Road		
3	Bubb Lane		
4	Botley Road		

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 - Snakemoor Lane	3.00	4.92	7.0	24.4	31.6	19.2		
2 - Winchester Road	3.69	5.57	4.0	26.0	31.6	17.1		
3 - Bubb Lane	3.93	5.11	4.0	14.2	31.6	22.7		
4 - Botley Road	2.73	5.70	6.0	30.2	31.6	25.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Snakemoor Lane	0.584	1275
2 - Winchester Road	0.617	1421
3 - Bubb Lane	0.593	1382
4 - Botley Road	0.568	1215

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

Traffic Demand

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Snakemoor Lane		✓	411	100.000
2 - Winchester Road		✓	723	100.000
3 - Bubb Lane		✓	915	100.000
4 - Botley Road		✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Snakemoor Lane	2 - Winchester Road	3 - Bubb Lane	4 - Botley Road
From	1 - Snakemoor Lane	0	79	286	46
	2 - Winchester Road	52	0	302	369
	3 - Bubb Lane	215	383	0	317
	4 - Botley Road	34	506	276	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Snakemoor Lane	2 - Winchester Road	3 - Bubb Lane	4 - Botley Road
From	1 - Snakemoor Lane	0	0	1	0
	2 - Winchester Road	2	0	1	1
	3 - Bubb Lane	0	1	0	0
	4 - Botley Road	27	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Snakemoor Lane	0.78	27.90	3.3	D
2 - Winchester Road	0.77	15.56	3.3	C
3 - Bubb Lane	0.93	41.12	10.8	E
4 - Botley Road	1.11	189.06	51.5	F

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	309	868	769	0.402	307	0.7	7.801	A
2 - Winchester Road	544	453	1142	0.477	541	0.9	6.017	A
3 - Bubb Lane	689	349	1175	0.586	683	1.4	7.270	A
4 - Botley Road	614	485	940	0.654	607	1.8	10.732	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	369	1036	671	0.551	367	1.2	11.873	B
2 - Winchester Road	650	542	1087	0.598	648	1.5	8.236	A
3 - Bubb Lane	823	418	1134	0.725	818	2.5	11.270	B
4 - Botley Road	734	581	885	0.829	724	4.3	21.337	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	453	1178	588	0.770	445	3.0	24.298	C
2 - Winchester Road	796	630	1032	0.771	789	3.2	14.558	B
3 - Bubb Lane	1007	509	1080	0.933	981	9.1	30.653	D
4 - Botley Road	898	698	819	1.097	801	28.8	89.572	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	453	1193	579	0.782	451	3.3	27.899	D
2 - Winchester Road	796	638	1028	0.774	795	3.3	15.561	C
3 - Bubb Lane	1007	514	1078	0.935	1001	10.8	41.119	E
4 - Botley Road	898	711	811	1.107	808	51.5	189.056	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	369	1177	588	0.628	376	1.8	17.505	C
2 - Winchester Road	650	593	1056	0.616	657	1.7	9.264	A
3 - Bubb Lane	823	424	1131	0.728	854	2.8	14.456	B
4 - Botley Road	734	606	871	0.842	855	21.2	157.147	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Snakemoor Lane	309	953	719	0.430	313	0.8	9.022	A
2 - Winchester Road	544	487	1121	0.486	547	1.0	6.372	A
3 - Bubb Lane	689	354	1172	0.588	694	1.5	7.641	A
4 - Botley Road	614	493	935	0.657	691	2.0	19.769	C