

2027 Base + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	34.53	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.53	D

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	2027 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	824	100.000
2		ONE HOUR	✓	1411	100.000
3		ONE HOUR	✓	557	100.000
4		ONE HOUR	✓	71	100.000
5		ONE HOUR	✓	980	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	345	274	11	194
	2	223	93	212	30	853
	3	193	271	0	20	73
	4	2	23	25	0	21
	5	113	792	63	12	0

Proportions

		To				
		1	2	3	4	5
From	1	0.00	0.42	0.33	0.01	0.24
	2	0.16	0.07	0.15	0.02	0.60
	3	0.35	0.49	0.00	0.04	0.13
	4	0.03	0.32	0.35	0.00	0.30
	5	0.12	0.81	0.06	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1	2	3	4	5
	1	0	2	1	22	1
	2	3	4	2	3	8
	3	1	2	0	0	0
	4	0	3	7	0	3
	5	4	9	2	7	0

Average PCU Per Veh

		To				
		1	2	3	4	5
From	1	1.000	1.020	1.010	1.220	1.010
	2	1.030	1.040	1.020	1.030	1.080
	3	1.010	1.020	1.000	1.000	1.000
	4	1.000	1.030	1.070	1.000	1.030
	5	1.040	1.090	1.020	1.070	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	620	620
	2	1062	1062
	3	419	419
	4	53	53
	5	738	738
08:00-08:15	1	741	741
	2	1268	1268
	3	501	501
	4	64	64
	5	881	881
08:15-08:30	1	907	907
	2	1554	1554
	3	613	613
	4	78	78
	5	1079	1079
08:30-08:45	1	907	907
	2	1554	1554
	3	613	613
	4	78	78
	5	1079	1079
08:45-09:00	1	741	741
	2	1268	1268
	3	501	501
	4	64	64
	5	881	881
09:00-09:15	1	620	620
	2	1062	1062
	3	419	419
	4	53	53
	5	738	738

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.77	13.55	3.3	B	756	1134
2	0.99	57.12	24.2	F	1295	1942
3	0.61	9.40	1.6	A	511	767
4	0.14	7.83	0.2	A	65	98
5	0.92	35.88	10.1	E	899	1349

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	620	155	957	1422	0.436	617	397	0.0	0.8	4.531	A
2	1062	286	434	1687	0.630	1055	1140	0.0	1.8	5.972	A
3	419	105	1059	1247	0.336	417	430	0.0	0.5	4.383	A
4	53	13	1422	846	0.063	53	55	0.0	0.1	4.732	A
5	738	184	621	1344	0.549	733	854	0.0	1.3	6.301	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	741	185	1145	1317	0.562	739	475	0.8	1.3	6.306	A
2	1268	317	519	1638	0.774	1262	1365	1.8	3.5	9.949	A
3	501	125	1267	1140	0.439	500	514	0.5	0.8	5.685	A
4	64	16	1701	722	0.088	64	65	0.1	0.1	5.704	A
5	881	220	744	1270	0.694	877	1021	1.3	2.4	9.762	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	907	227	1381	1186	0.765	900	572	1.3	3.1	12.468	B
2	1554	388	631	1574	0.987	1496	1649	3.5	17.7	35.347	E
3	613	153	1508	1015	0.604	610	619	0.8	1.5	8.948	A
4	78	20	2040	571	0.137	78	79	0.1	0.2	7.615	A
5	1079	270	898	1177	0.917	1054	1220	2.4	8.6	27.356	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	907	227	1401	1175	0.772	906	580	3.1	3.3	13.555	B
2	1554	388	637	1571	0.969	1528	1671	17.7	24.2	57.117	F
3	613	153	1537	1000	0.613	613	627	1.5	1.6	9.403	A
4	78	20	2070	557	0.140	78	80	0.2	0.2	7.834	A
5	1079	270	908	1171	0.921	1073	1240	8.6	10.1	35.876	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	741	185	1183	1296	0.572	748	495	3.3	1.4	6.775	A
2	1268	317	527	1633	0.777	1350	1404	24.2	3.9	16.994	C
3	501	125	1344	1100	0.455	504	533	1.6	0.9	6.145	A
4	64	16	1780	687	0.093	64	68	0.2	0.1	6.031	A
5	881	220	767	1256	0.701	911	1077	10.1	2.6	12.136	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	620	155	969	1415	0.438	623	402	1.4	0.8	4.632	A
2	1062	266	438	1684	0.631	1071	1154	3.9	1.8	6.290	A
3	419	105	1074	1240	0.338	421	435	0.9	0.5	4.460	A
4	53	13	1439	839	0.064	54	55	0.1	0.1	4.784	A
5	738	184	628	1340	0.551	743	865	2.6	1.3	6.561	A

2027 Base + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	161.31	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	161.31	F

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	2027 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	371	100.000
2		ONE HOUR	✓	1676	100.000
3		ONE HOUR	✓	487	100.000
4		ONE HOUR	✓	81	100.000
5		ONE HOUR	✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	126	124	7	114
	2	258	294	269	17	838
	3	173	234	0	27	53
	4	9	32	33	0	7
	5	129	887	95	29	0

Proportions

		To				
		1	2	3	4	5
From	1	0.00	0.34	0.33	0.02	0.31
	2	0.15	0.18	0.16	0.01	0.50
	3	0.38	0.48	0.00	0.06	0.11
	4	0.11	0.40	0.41	0.00	0.09
	5	0.11	0.78	0.08	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	5
From	1	0	0	4	0
	2	1	0	0	0
	3	1	0	0	0
	4	0	0	0	0
	5	2	4	1	0

Average PCU Per Veh

	To				
	1	2	3	4	5
From	1	1.000	1.000	1.040	1.000
	2	1.010	1.000	1.000	1.030
	3	1.010	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000
	5	1.020	1.040	1.010	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	279	279
	2	1262	1262
	3	367	367
	4	61	61
	5	858	858
17:00-17:15	1	334	334
	2	1507	1507
	3	438	438
	4	73	73
	5	1025	1025
17:15-17:30	1	408	408
	2	1845	1845
	3	536	536
	4	89	89
	5	1255	1255
17:30-17:45	1	408	408
	2	1845	1845
	3	536	536
	4	89	89
	5	1255	1255
17:45-18:00	1	334	334
	2	1507	1507
	3	438	438
	4	73	73
	5	1025	1025
18:00-18:15	1	279	279
	2	1262	1262
	3	367	367
	4	61	61
	5	858	858

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	5.41	0.6	A	340	511
2	1.09	153.26	88.1	F	1538	2307
3	0.55	8.16	1.2	A	447	670
4	0.16	7.43	0.2	A	74	111
5	1.18	300.24	103.6	F	1046	1569

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	279	70	1197	1288	0.217	278	425	0.0	0.3	3.607	A
2	1262	315	301	1762	0.716	1252	1174	0.0	2.5	7.037	A
3	367	92	1163	1194	0.307	365	389	0.0	0.4	4.350	A
4	61	15	1468	826	0.074	61	60	0.0	0.1	4.704	A
5	858	215	773	1253	0.685	850	756	0.0	2.2	9.047	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	334	83	1424	1162	0.287	333	507	0.3	0.4	4.394	A
2	1507	377	359	1729	0.871	1492	1398	2.5	6.1	14.609	B
3	438	109	1387	1078	0.406	437	464	0.4	0.7	5.627	A
4	73	18	1752	699	0.104	73	71	0.1	0.1	5.747	A
5	1025	256	923	1162	0.882	1008	902	2.2	6.4	22.070	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	408	102	1560	1087	0.376	408	577	0.4	0.6	5.384	A
2	1845	461	421	1694	1.089	1673	1547	6.1	49.3	89.370	F
3	536	134	1564	986	0.544	534	529	0.7	1.2	7.957	A
4	89	22	2017	581	0.154	89	81	0.1	0.2	7.314	A
5	1255	314	1079	1068	1.175	1059	1027	6.4	55.5	117.175	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	408	102	1568	1082	0.377	408	581	0.6	0.6	5.411	A
2	1845	461	422	1693	1.090	1690	1555	49.3	88.1	153.259	F
3	536	134	1579	979	0.548	536	533	1.2	1.2	8.160	A
4	89	22	2033	574	0.155	89	82	0.2	0.2	7.429	A
5	1255	314	1086	1084	1.180	1083	1037	55.5	103.6	275.003	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	334	83	1551	1092	0.305	334	552	0.6	0.4	4.819	A
2	1507	377	371	1722	0.875	1703	1514	88.1	39.1	136.871	F
3	438	109	1567	985	0.444	439	507	1.2	0.8	6.641	A
4	73	18	1930	620	0.117	73	76	0.2	0.1	6.587	A
5	1025	256	995	1119	0.916	1108	1008	103.6	82.9	300.236	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	279	70	1517	1111	0.251	280	487	0.4	0.3	4.392	A
2	1262	315	338	1741	0.725	1407	1459	39.1	2.8	16.460	C
3	367	92	1302	1122	0.327	368	442	0.8	0.5	4.802	A
4	61	15	1600	767	0.080	61	70	0.1	0.1	5.105	A
5	858	215	827	1220	0.703	1178	835	82.9	3.0	125.049	F

2032 Base + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	26.77	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.77	D

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
D7	2032 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	641	100.000
2		ONE HOUR	✓	1430	100.000
3		ONE HOUR	✓	551	100.000
4		ONE HOUR	✓	76	100.000
5		ONE HOUR	✓	983	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	289	217	12	123
	2	207	96	219	32	876
	3	177	278	0	21	75
	4	3	24	27	0	22
	5	92	814	65	12	0

Proportions

	To					
	1	2	3	4	5	
From	1	0.00	0.45	0.34	0.02	0.19
	2	0.14	0.07	0.15	0.02	0.61
	3	0.32	0.50	0.00	0.04	0.14
	4	0.04	0.32	0.36	0.00	0.29
	5	0.09	0.83	0.07	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1	2	3	4	5
	1	0	2	1	22	1
	2	3	4	2	3	8
	3	1	2	0	0	0
	4	0	3	7	0	3
	5	4	9	2	7	0

Average PCU Per Veh

		To				
		1	2	3	4	5
From	1	1.000	1.020	1.010	1.220	1.010
	2	1.030	1.040	1.020	1.030	1.080
	3	1.010	1.020	1.000	1.000	1.000
	4	1.000	1.030	1.070	1.000	1.030
	5	1.040	1.090	1.020	1.070	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	483	483
	2	1077	1077
	3	415	415
	4	57	57
	5	740	740
08:00-08:15	1	576	576
	2	1286	1286
	3	495	495
	4	68	68
	5	884	884
08:15-08:30	1	706	706
	2	1574	1574
	3	607	607
	4	84	84
	5	1082	1082
08:30-08:45	1	706	706
	2	1574	1574
	3	607	607
	4	84	84
	5	1082	1082
08:45-09:00	1	576	576
	2	1286	1286
	3	495	495
	4	68	68
	5	884	884
09:00-09:15	1	483	483
	2	1077	1077
	3	415	415
	4	57	57
	5	740	740

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.61	8.21	1.6	A	588	882
2	0.96	37.93	15.8	E	1312	1968
3	0.59	8.67	1.4	A	506	758
4	0.14	7.48	0.2	A	70	105
5	0.92	34.28	9.6	D	902	1353

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	483	121	984	1408	0.343	490	359	0.0	0.5	3.949	A
2	1077	289	342	1739	0.619	1070	1123	0.0	1.7	5.842	A
3	415	104	1016	1270	0.327	413	395	0.0	0.5	4.247	A
4	57	14	1371	889	0.086	57	58	0.0	0.1	4.822	A
5	740	185	808	1352	0.547	735	820	0.0	1.3	6.249	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	576	144	1178	1299	0.444	575	429	0.5	0.8	5.057	A
2	1286	321	409	1701	0.756	1280	1344	1.7	3.2	8.932	A
3	495	124	1216	1167	0.425	494	473	0.5	0.7	5.418	A
4	68	17	1641	749	0.091	68	69	0.1	0.1	5.516	A
5	884	221	728	1280	0.690	880	981	1.3	2.3	9.609	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	706	176	1423	1163	0.607	703	519	0.8	1.5	7.914	A
2	1574	394	498	1650	0.954	1535	1627	3.2	12.9	27.087	D
3	607	152	1461	1040	0.584	604	573	0.7	1.4	8.327	A
4	84	21	1982	597	0.140	83	83	0.1	0.2	7.309	A
5	1082	271	883	1186	0.913	1058	1182	2.3	8.3	26.553	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	706	176	1443	1151	0.613	706	525	1.5	1.6	8.210	A
2	1574	394	502	1648	0.955	1564	1647	12.9	15.6	37.930	E
3	607	152	1486	1027	0.591	606	579	1.4	1.4	8.672	A
4	84	21	2008	585	0.143	84	84	0.2	0.2	7.485	A
5	1082	271	892	1181	0.916	1077	1200	8.3	9.6	34.275	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	576	144	1214	1279	0.450	579	441	1.6	0.8	5.258	A
2	1286	321	414	1698	0.757	1334	1379	15.6	3.4	11.790	B
3	495	124	1263	1142	0.434	498	485	1.4	0.8	5.687	A
4	68	17	1690	727	0.094	69	71	0.2	0.1	5.704	A
5	884	221	743	1271	0.695	912	1016	9.6	2.6	11.628	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	483	121	996	1400	0.345	484	362	0.8	0.5	4.006	A
2	1077	289	344	1738	0.620	1083	1136	3.4	1.8	5.889	A
3	415	104	1028	1263	0.328	416	399	0.8	0.5	4.311	A
4	57	14	1386	862	0.066	57	58	0.1	0.1	4.663	A
5	740	185	614	1349	0.549	745	830	2.6	1.3	6.492	A

2032 Base + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	109.19	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	109.19	F

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
D8	2032 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	307	100.000
2		ONE HOUR	✓	1661	100.000
3		ONE HOUR	✓	443	100.000
4		ONE HOUR	✓	84	100.000
5		ONE HOUR	✓	1103	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	106	105	7	89
	2	204	303	278	18	858
	3	119	241	0	28	55
	4	9	33	34	0	8
	5	64	911	98	30	0

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.35	0.34	0.02	0.29
	2	0.12	0.18	0.17	0.01	0.52
	3	0.27	0.54	0.00	0.06	0.12
	4	0.11	0.39	0.40	0.00	0.10
5	0.06	0.83	0.09	0.03	0.00	

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	5
From	1	0	0	4	0
	2	1	0	0	0
	3	1	0	0	0
	4	0	0	0	0
	5	2	4	1	0

Average PCU Per Veh

	To				
	1	2	3	4	5
From	1	1.000	1.000	1.040	1.000
	2	1.010	1.000	1.000	1.030
	3	1.010	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000
	5	1.020	1.040	1.010	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	231	231
	2	1250	1250
	3	334	334
	4	63	63
	5	830	830
17:00-17:15	1	276	276
	2	1493	1493
	3	398	398
	4	76	76
	5	992	992
17:15-17:30	1	338	338
	2	1829	1829
	3	488	488
	4	92	92
	5	1214	1214
17:30-17:45	1	338	338
	2	1829	1829
	3	488	488
	4	92	92
	5	1214	1214
17:45-18:00	1	276	276
	2	1493	1493
	3	398	398
	4	76	76
	5	992	992
18:00-18:15	1	231	231
	2	1250	1250
	3	334	334
	4	63	63
	5	830	830

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.33	5.42	0.5	A	282	423
2	1.07	126.55	71.8	F	1524	2286
3	0.49	7.18	1.0	A	407	610
4	0.15	6.99	0.2	A	77	116
5	1.09	160.69	59.7	F	1012	1518

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	231	58	1233	1269	0.182	230	296	0.0	0.2	3.509	A
2	1250	313	272	1779	0.703	1241	1191	0.0	2.3	6.694	A
3	334	83	1128	1212	0.275	332	385	0.0	0.4	4.095	A
4	63	16	1398	857	0.074	63	62	0.0	0.1	4.530	A
5	830	208	706	1293	0.642	823	755	0.0	1.8	7.804	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	276	69	1471	1136	0.243	276	354	0.2	0.3	4.237	A
2	1493	373	325	1749	0.854	1481	1422	2.3	5.4	13.097	B
3	398	100	1346	1099	0.362	398	460	0.4	0.6	5.139	A
4	76	19	1669	736	0.103	75	74	0.1	0.1	5.447	A
5	992	248	843	1210	0.819	982	901	1.8	4.3	15.654	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	338	85	1679	1021	0.331	337	411	0.3	0.5	5.331	A
2	1829	457	385	1714	1.067	1686	1630	5.4	41.2	59.713	F
3	488	122	1539	999	0.488	486	532	0.6	0.9	7.013	A
4	92	23	1939	616	0.150	92	87	0.1	0.2	6.871	A
5	1214	304	993	1120	1.084	1097	1038	4.3	33.7	75.096	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	338	85	1697	1011	0.334	338	415	0.5	0.5	5.420	A
2	1829	457	388	1713	1.068	1707	1647	41.2	71.6	126.553	F
3	488	122	1557	990	0.493	488	537	0.9	1.0	7.184	A
4	92	23	1958	607	0.152	92	87	0.2	0.2	6.989	A
5	1214	304	1001	1115	1.089	1111	1049	33.7	59.7	160.686	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	276	69	1670	1026	0.269	277	392	0.5	0.4	4.873	A
2	1493	373	345	1737	0.859	1713	1602	71.6	16.7	97.044	F
3	398	100	1544	997	0.400	399	514	1.0	0.7	6.056	A
4	76	19	1862	650	0.116	76	81	0.2	0.1	6.271	A
5	992	248	916	1166	0.850	1147	1022	59.7	21.0	130.667	F

17:45 - 18:00

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	231	58	1325	1217	0.190	232	310	0.4	0.2	3.705	A
2	1250	313	283	1773	0.705	1307	1274	16.7	2.5	8.808	A
3	334	83	1185	1182	0.282	335	404	0.7	0.4	4.264	A
4	63	16	1455	832	0.076	63	65	0.1	0.1	4.687	A
5	830	208	728	1280	0.649	906	790	21.0	2.0	12.107	B

2032 Base + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	48.25	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	48.25	E

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
D9	2032 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	842	100.000
2		ONE HOUR	✓	1452	100.000
3		ONE HOUR	✓	572	100.000
4		ONE HOUR	✓	76	100.000
5		ONE HOUR	✓	1007	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	354	280	12	196
	2	229	96	219	32	876
	3	198	278	0	21	75
	4	3	24	27	0	22
	5	116	814	65	12	0

Proportions

		To				
		1	2	3	4	5
From	1	0.00	0.42	0.33	0.01	0.23
	2	0.16	0.07	0.15	0.02	0.60
	3	0.35	0.49	0.00	0.04	0.13
	4	0.04	0.32	0.36	0.00	0.29
	5	0.12	0.81	0.06	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
	1	0	2	1	22
	2	3	4	2	3
	3	1	2	0	0
	4	0	3	7	0
	5	4	9	2	7

Average PCU Per Veh

From	To				
	1	2	3	4	5
	1	1.000	1.020	1.010	1.220
	2	1.030	1.040	1.020	1.030
	3	1.010	1.020	1.000	1.000
	4	1.000	1.030	1.070	1.030
	5	1.040	1.090	1.020	1.070

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	634	634
	2	1093	1093
	3	431	431
	4	57	57
	5	758	758
08:00-08:15	1	757	757
	2	1305	1305
	3	514	514
	4	68	68
	5	905	905
08:15-08:30	1	927	927
	2	1599	1599
	3	630	630
	4	84	84
	5	1109	1109
08:30-08:45	1	927	927
	2	1599	1599
	3	630	630
	4	84	84
	5	1109	1109
08:45-09:00	1	757	757
	2	1305	1305
	3	514	514
	4	68	68
	5	905	905
09:00-09:15	1	634	634
	2	1093	1093
	3	431	431
	4	57	57
	5	758	758

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.80	15.72	3.9	C	773	1159
2	1.02	83.15	38.7	F	1332	1999
3	0.63	10.04	1.7	B	525	787
4	0.15	8.14	0.2	A	70	105
5	0.96	49.88	14.5	E	924	1388

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	834	158	984	1407	0.451	831	408	0.0	0.8	4.697	A
2	1093	273	443	1681	0.650	1085	1171	0.0	1.9	6.318	A
3	431	108	1086	1233	0.349	428	442	0.0	0.5	4.519	A
4	57	14	1457	830	0.089	57	58	0.0	0.1	4.848	A
5	758	190	640	1333	0.569	753	874	0.0	1.4	6.630	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	757	189	1177	1299	0.583	755	489	0.8	1.4	6.692	A
2	1305	326	530	1631	0.800	1297	1402	1.9	4.0	11.127	B
3	514	129	1299	1124	0.458	513	529	0.5	0.8	5.960	A
4	68	17	1743	703	0.097	68	69	0.1	0.1	5.908	A
5	905	226	766	1257	0.720	900	1045	1.4	2.7	10.733	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	927	232	1410	1170	0.792	918	583	1.4	3.6	14.072	B
2	1599	400	644	1587	1.020	1515	1685	4.0	25.0	45.078	E
3	630	157	1526	1006	0.626	627	633	0.8	1.6	9.529	A
4	84	21	2070	557	0.150	83	82	0.1	0.2	7.915	A
5	1109	277	920	1164	0.952	1073	1234	2.7	11.5	34.139	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	927	232	1434	1156	0.802	926	591	3.6	3.9	15.722	C
2	1599	400	650	1583	1.023	1544	1710	25.0	38.7	83.151	F
3	630	157	1553	992	0.635	629	641	1.6	1.7	10.040	B
4	84	21	2099	545	0.154	84	83	0.2	0.2	8.143	A
5	1109	277	929	1159	0.957	1097	1254	11.5	14.5	49.855	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	757	189	1234	1268	0.597	766	519	3.9	1.5	7.432	A
2	1305	326	541	1625	0.803	1441	1459	38.7	4.7	32.251	D
3	514	129	1425	1059	0.486	517	558	1.7	1.0	6.774	A
4	68	17	1889	647	0.106	69	73	0.2	0.1	6.489	A
5	905	226	802	1235	0.733	951	1136	14.5	3.1	15.659	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	834	158	998	1399	0.453	837	414	1.5	0.9	4.821	A
2	1093	273	448	1679	0.651	1104	1187	4.7	2.0	6.757	A
3	431	108	1104	1224	0.352	432	448	1.0	0.6	4.614	A
4	57	14	1478	821	0.070	57	58	0.1	0.1	4.913	A
5	758	190	648	1328	0.571	765	888	3.1	1.5	6.971	A

2032 Base + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - 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	206.77	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	206.77	F

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
D10	2032 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	379	100.000
2		ONE HOUR	✓	1720	100.000
3		ONE HOUR	✓	500	100.000
4		ONE HOUR	✓	84	100.000
5		ONE HOUR	✓	1170	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	129	127	7	116
	2	283	303	278	18	858
	3	176	241	0	28	55
	4	9	33	34	0	8
	5	131	911	98	30	0

Proportions

		To				
		1	2	3	4	5
From	1	0.00	0.34	0.34	0.02	0.31
	2	0.15	0.18	0.16	0.01	0.50
	3	0.35	0.48	0.00	0.06	0.11
	4	0.11	0.39	0.40	0.00	0.10
	5	0.11	0.78	0.08	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	5
From	1	0	0	4	0
	2	1	0	0	0
	3	1	0	0	0
	4	0	0	0	0
	5	2	4	1	0

Average PCU Per Veh

	To				
	1	2	3	4	5
From	1	1.000	1.000	1.040	1.000
	2	1.010	1.000	1.000	1.030
	3	1.010	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000
	5	1.020	1.040	1.010	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	285	285
	2	1295	1295
	3	378	378
	4	63	63
	5	881	881
17:00-17:15	1	341	341
	2	1546	1546
	3	449	449
	4	76	76
	5	1052	1052
17:15-17:30	1	417	417
	2	1894	1894
	3	551	551
	4	92	92
	5	1288	1288
17:30-17:45	1	417	417
	2	1894	1894
	3	551	551
	4	92	92
	5	1288	1288
17:45-18:00	1	341	341
	2	1546	1546
	3	449	449
	4	76	76
	5	1052	1052
18:00-18:15	1	285	285
	2	1295	1295
	3	378	378
	4	63	63
	5	881	881

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.39	5.51	0.6	A	348	522
2	1.12	198.99	113.4	F	1578	2367
3	0.58	8.42	1.3	A	459	688
4	0.16	7.56	0.2	A	77	116
5	1.22	382.48	124.9	F	1074	1610

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	285	71	1230	1270	0.225	284	432	0.0	0.3	3.695	A
2	1295	324	308	1758	0.737	1284	1206	0.0	2.8	7.550	A
3	376	94	1191	1179	0.319	375	401	0.0	0.5	4.479	A
4	63	16	1504	810	0.078	63	82	0.0	0.1	4.817	A
5	881	220	792	1241	0.710	871	775	0.0	2.4	9.816	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	1459	1143	0.298	340	515	0.3	0.4	4.540	A
2	1546	387	367	1724	0.897	1527	1432	2.8	7.5	17.127	C
3	449	112	1417	1062	0.423	448	478	0.5	0.7	5.876	A
4	76	19	1792	681	0.111	75	74	0.1	0.1	5.939	A
5	1052	263	945	1149	0.915	1029	923	2.4	8.2	26.931	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	1569	1082	0.386	416	577	0.4	0.6	5.474	A
2	1894	473	427	1690	1.120	1676	1558	7.5	61.9	83.852	F
3	551	138	1567	985	0.559	548	536	0.7	1.2	8.241	A
4	92	23	2033	574	0.161	92	83	0.1	0.2	7.468	A
5	1288	322	1092	1060	1.215	1054	1033	8.2	66.8	139.596	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	1574	1079	0.387	417	580	0.6	0.6	5.511	A
2	1894	473	428	1690	1.121	1688	1563	61.9	113.4	192.976	F
3	551	138	1578	979	0.562	550	539	1.2	1.3	8.418	A
4	92	23	2045	569	0.163	92	83	0.2	0.2	7.559	A
5	1288	322	1098	1057	1.219	1056	1039	66.8	124.9	330.378	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	85	1558	1088	0.313	341	551	0.6	0.5	4.890	A
2	1546	387	377	1719	0.899	1704	1523	113.4	74.0	198.969	F
3	449	112	1568	985	0.457	451	513	1.3	0.9	6.796	A
4	76	19	1941	615	0.123	76	78	0.2	0.1	6.679	A
5	1052	263	1005	1112	0.946	1103	1011	124.9	112.0	382.476	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	285	71	1550	1092	0.261	286	512	0.5	0.4	4.525	A
2	1295	324	342	1739	0.745	1578	1493	74.0	3.2	57.037	F
3	376	94	1446	1048	0.359	378	474	0.9	0.6	5.402	A
4	63	16	1750	700	0.090	63	73	0.1	0.1	5.657	A
5	881	220	892	1181	0.746	1170	922	112.0	39.7	236.252	F

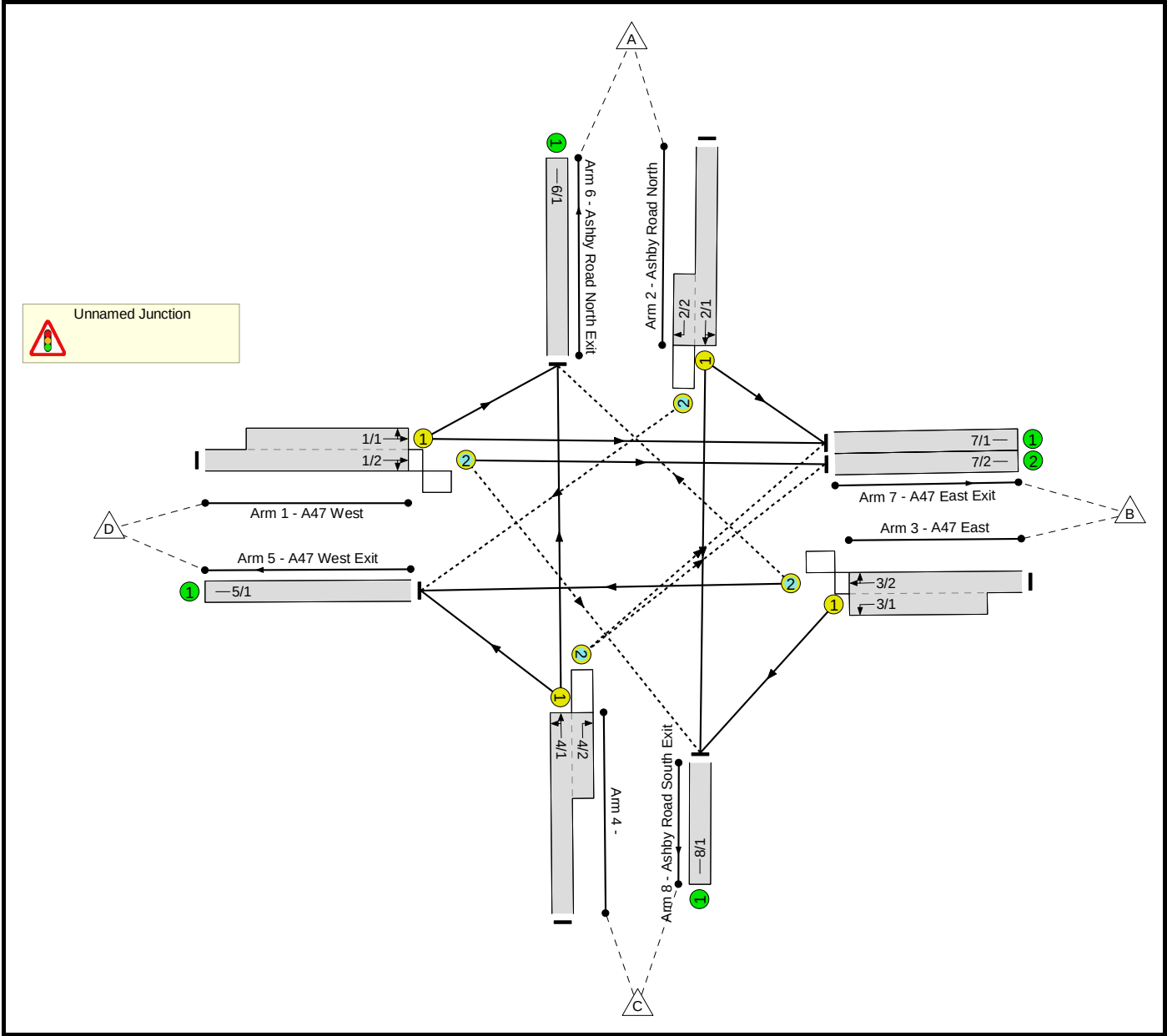
Appendix J

A47/Ashby Road – LinSig Outputs

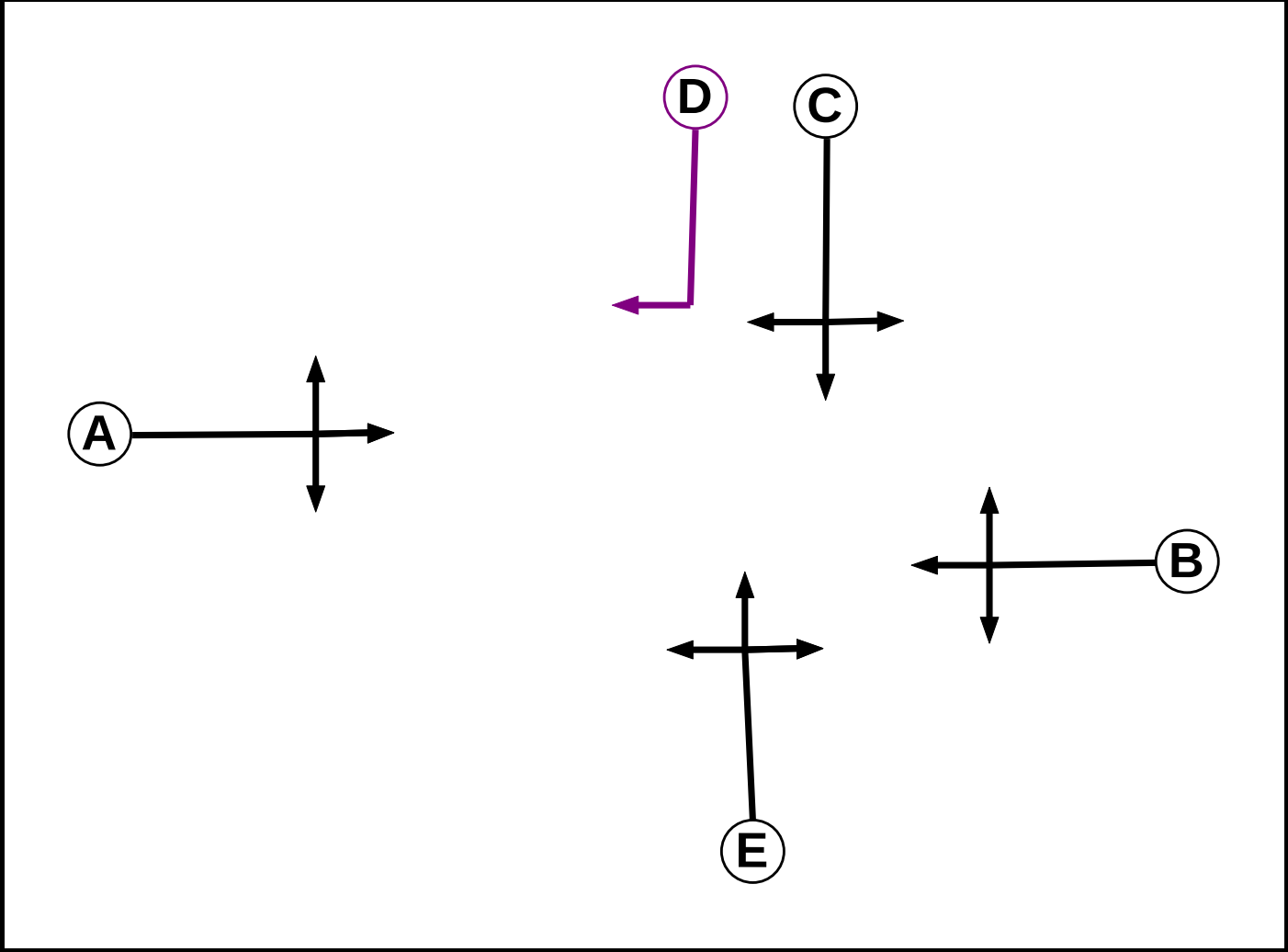
User and Project Details

Project:	T19595 – Land East of Stoke Road, Hinckley
Title:	Ashby Road/A47 Traffic Signal Junction
Location:	Hinckley
Additional detail:	
File name:	Ashby Road-A47 Signals.lsg3x
Author:	JC
Company:	Hub Transport Planning
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7

Full Input Data And Results

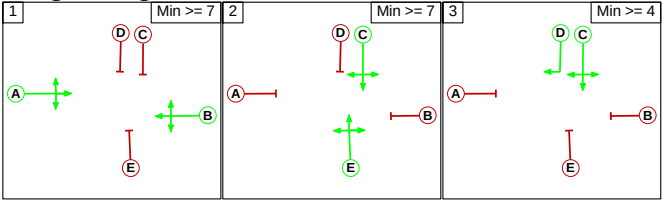
Phase Intergreens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		-	7	6	7
	B	-		5	5	5
	C	7	7		-	-
	D	7	7	-		5
	E	6	6	-	4	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C E
3	C D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		7	X
	2	7		4
	3	7	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A47 West)	8/1 (Right)	1439	0	3/1	1.09	All	3.00	2.00	0.50	3	2.00
				3/2	1.09	To 5/1 (Ahead)					
2/2 (Ashby Road North)	5/1 (Right)	1439	0	4/1	1.09	All	3.00	-	0.50	3	2.00
3/2 (A47 East)	6/1 (Right)	1439	0	1/1	1.09	All	3.00	2.00	0.50	3	2.00
				1/2	1.09	To 7/2 (Ahead)					
4/2	7/1 (Right)	1439	0	2/1	1.09	All	3.00	-	0.50	3	2.00
	7/2 (Right)	1439	0	2/1	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A47 West)	U	A	2	3	15.0	Geom	-	3.00	0.00	Y	Arm 6 Left	15.00
											Arm 7 Ahead	Inf
1/2 (A47 West)	O	A	2	3	60.0	Geom	-	4.00	0.00	N	Arm 7 Ahead	Inf
											Arm 8 Right	20.00
2/1 (Ashby Road North)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	15.00
											Arm 8 Ahead	Inf
2/2 (Ashby Road North)	O	C D	2	3	5.0	Geom	-	2.70	0.00	Y	Arm 5 Right	20.00
3/1 (A47 East)	U	B	2	3	15.0	Geom	-	3.00	0.00	Y	Arm 8 Left	15.00
											Arm 5 Ahead	Inf
3/2 (A47 East)	O	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 6 Right	20.00
4/1	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
4/2	O	E	2	3	6.0	Geom	-	3.00	0.00	N	Arm 7 Right	20.00
5/1 (A47 West Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Ashby Road North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A47 East Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A47 East Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Ashby Road South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM'	08:00	09:00	01:00	
2: '2022 Base PM'	17:00	18:00	01:00	
3: '2027 Base AM'	08:00	09:00	01:00	
4: '2027 Base PM'	17:00	18:00	01:00	
5: '2027 + Committed AM'	08:00	09:00	01:00	
6: '2027 + Committed PM'	17:00	18:00	01:00	
7: '2027 + Committed + Development AM'	08:00	09:00	01:00	
8: '2027 + Committed + Development PM'	17:00	18:00	01:00	
9: '2032 Base AM'	08:00	09:00	01:00	
10: '2032 Base PM'	17:00	18:00	01:00	
11: '2032 + Committed AM'	08:00	09:00	01:00	
12: '2032 + Committed PM'	17:00	18:00	01:00	
13: '2032 + Committed + Development AM'	08:00	09:00	01:00	
14: '2032 + Committed + Development PM'	17:00	18:00	01:00	

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	35	381	329	745
	B	38	0	146	648	832
	C	260	121	0	165	546
	D	236	488	118	0	842
	Tot.	534	644	645	1142	2965

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM
Junction: Unnamed Junction	
1/1 (short)	440
1/2 (with short)	842(In) 402(Out)
2/1 (with short)	745(In) 416(Out)
2/2 (short)	329
3/1 (short)	146
3/2 (with short)	832(In) 686(Out)
4/1 (with short)	546(In) 425(Out)
4/2 (short)	121
5/1	1142
6/1	534
7/1	300
7/2	344
8/1	645

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	53.6 %	1818	1818
				Arm 7 Ahead	Inf	46.4 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	70.6 %	2109	2109
				Arm 8 Right	20.00	29.4 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.4 %	1869	1869
				Arm 8 Ahead	Inf	91.6 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	94.5 %	2046	2046
				Arm 6 Right	20.00	5.5 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.8 %	1843	1843
				Arm 6 Ahead	Inf	61.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	37	394	340	771
	B	31	0	147	467	645
	C	269	125	0	170	564
	D	243	504	122	0	869
	Tot.	543	666	663	977	2849

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM
Junction: Unnamed Junction	
1/1 (short)	444
1/2 (with short)	869(In) 425(Out)
2/1 (with short)	771(In) 431(Out)
2/2 (short)	340
3/1 (short)	147
3/2 (with short)	645(In) 498(Out)
4/1 (with short)	564(In) 439(Out)
4/2 (short)	125
5/1	977
6/1	543
7/1	301
7/2	365
8/1	663

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	54.7 %	1816	1816
				Arm 7 Ahead	Inf	45.3 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	71.3 %	2110	2110
				Arm 8 Right	20.00	28.7 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.6 %	1869	1869
				Arm 8 Ahead	Inf	91.4 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2045	2045
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.7 %	1844	1844
				Arm 6 Ahead	Inf	61.3 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 3: '2027 Base AM' (FG3: '2027 Base AM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	37	395	340	772
	B	44	0	151	671	866
	C	269	125	0	171	565
	D	244	504	122	0	870
	Tot.	557	666	668	1182	3073

Traffic Lane Flows

Lane	Scenario 3: 2027 Base AM
Junction: Unnamed Junction	
1/1 (short)	546
1/2 (with short)	870(In) 324(Out)
2/1 (with short)	772(In) 432(Out)
2/2 (short)	340
3/1 (short)	151
3/2 (with short)	866(In) 715(Out)
4/1 (with short)	565(In) 440(Out)
4/2 (short)	125
5/1	1182
6/1	557
7/1	402
7/2	264
8/1	668

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	44.7 %	1833	1833
				Arm 7 Ahead	Inf	55.3 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	62.3 %	2096	2096
				Arm 8 Right	20.00	37.7 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.6 %	1869	1869
				Arm 8 Ahead	Inf	91.4 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2046	2046
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.9 %	1843	1843
				Arm 6 Ahead	Inf	61.1 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 4: '2027 Base PM' (FG4: '2027 Base PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	38	408	351	797
	B	32	0	152	483	667
	C	278	129	0	176	583
	D	252	521	126	0	899
	Tot.	562	688	686	1010	2946

Traffic Lane Flows

Lane	Scenario 4: 2027 Base PM
Junction: Unnamed Junction	
1/1 (short)	471
1/2 (with short)	899(In) 428(Out)
2/1 (with short)	797(In) 446(Out)
2/2 (short)	351
3/1 (short)	152
3/2 (with short)	667(In) 515(Out)
4/1 (with short)	583(In) 454(Out)
4/2 (short)	129
5/1	1010
6/1	562
7/1	322
7/2	366
8/1	686

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	53.5 %	1818	1818
				Arm 7 Ahead	Inf	46.5 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	70.6 %	2108	2108
				Arm 8 Right	20.00	29.4 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.5 %	1869	1869
				Arm 8 Ahead	Inf	91.5 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2045	2045
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.8 %	1844	1844
				Arm 6 Ahead	Inf	61.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 5: '2027 + Committed AM' (FG5: '2027 + Committed AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	44	386	435	865
	B	49	0	134	730	913
	C	305	138	0	170	613
	D	371	620	121	0	1112
	Tot.	725	802	641	1335	3503

Traffic Lane Flows

Lane	Scenario 5: 2027 + Committed AM
Junction: Unnamed Junction	
1/1 (short)	854
1/2 (with short)	1112(In) 258(Out)
2/1 (with short)	865(In) 430(Out)
2/2 (short)	435
3/1 (short)	134
3/2 (with short)	913(In) 779(Out)
4/1 (with short)	613(In) 475(Out)
4/2 (short)	138
5/1	1335
6/1	725
7/1	596
7/2	206
8/1	641

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	43.4 %	1835	1835
				Arm 7 Ahead	Inf	56.6 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	53.1 %	2082	2082
				Arm 8 Right	20.00	46.9 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	10.2 %	1866	1866
				Arm 8 Ahead	Inf	89.8 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.7 %	2045	2045
				Arm 6 Right	20.00	6.3 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	35.8 %	1849	1849
				Arm 6 Ahead	Inf	64.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 6: '2027 + Committed PM' (FG6: '2027 + Committed PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	50	333	472	855
	B	49	0	98	614	761
	C	392	146	0	195	733
	D	426	569	61	0	1056
	Tot.	867	765	492	1281	3405

Traffic Lane Flows

Lane	Scenario 6: 2027 + Committed PM
Junction: Unnamed Junction	
1/1 (short)	573
1/2 (with short)	1056(In) 483(Out)
2/1 (with short)	855(In) 383(Out)
2/2 (short)	472
3/1 (short)	98
3/2 (with short)	761(In) 663(Out)
4/1 (with short)	733(In) 587(Out)
4/2 (short)	146
5/1	1281
6/1	867
7/1	270
7/2	495
8/1	492

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	74.3 %	1782	1782
				Arm 7 Ahead	Inf	25.7 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	87.4 %	2135	2135
				Arm 8 Right	20.00	12.6 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	13.1 %	1861	1861
				Arm 8 Ahead	Inf	86.9 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	92.6 %	2044	2044
				Arm 6 Right	20.00	7.4 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	33.2 %	1853	1853
				Arm 6 Ahead	Inf	66.8 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 7: '2027 + Committed + Dev AM' (FG7: '2027 + Committed + Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	44	386	437	867
	B	49	0	134	744	927
	C	305	138	0	175	618
	D	375	664	138	0	1177
	Tot.	729	846	658	1356	3589

Traffic Lane Flows

Lane	Scenario 7: 2027 + Committed + Dev AM
Junction: Unnamed Junction	
1/1 (short)	843
1/2 (with short)	1177(In) 334(Out)
2/1 (with short)	867(In) 430(Out)
2/2 (short)	437
3/1 (short)	134
3/2 (with short)	927(In) 793(Out)
4/1 (with short)	618(In) 480(Out)
4/2 (short)	138
5/1	1356
6/1	729
7/1	581
7/2	265
8/1	658

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	44.5 %	1833	1833
				Arm 7 Ahead	Inf	55.5 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	58.7 %	2090	2090
				Arm 8 Right	20.00	41.3 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	10.2 %	1866	1866
				Arm 8 Ahead	Inf	89.8 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2046	2046
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	36.5 %	1848	1848
				Arm 6 Ahead	Inf	63.5 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 8: '2027 + Committed + Dev PM' (FG8: '2027 + Committed + Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	50	333	476	859
	B	49	0	98	654	801
	C	392	146	0	211	749
	D	427	585	67	0	1079
	Tot.	868	781	498	1341	3488

Traffic Lane Flows

Lane	Scenario 8: 2027 + Committed + Dev PM
Junction: Unnamed Junction	
1/1 (short)	634
1/2 (with short)	1079(In) 445(Out)
2/1 (with short)	859(In) 383(Out)
2/2 (short)	476
3/1 (short)	98
3/2 (with short)	801(In) 703(Out)
4/1 (with short)	749(In) 603(Out)
4/2 (short)	146
5/1	1341
6/1	868
7/1	330
7/2	451
8/1	498

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	67.4 %	1794	1794
				Arm 7 Ahead	Inf	32.6 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	84.9 %	2131	2131
				Arm 8 Right	20.00	15.1 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	13.1 %	1861	1861
				Arm 8 Ahead	Inf	86.9 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.0 %	2044	2044
				Arm 6 Right	20.00	7.0 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	35.0 %	1850	1850
				Arm 6 Ahead	Inf	65.0 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 9: '2032 Base AM' (FG9: '2032 Base AM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	38	408	352	798
	B	46	0	156	693	895
	C	278	129	0	176	583
	D	252	521	126	0	899
	Tot.	576	688	690	1221	3175

Traffic Lane Flows

Lane	Scenario 9: 2032 Base AM
Junction: Unnamed Junction	
1/1 (short)	759
1/2 (with short)	899(In) 140(Out)
2/1 (with short)	798(In) 446(Out)
2/2 (short)	352
3/1 (short)	156
3/2 (with short)	895(In) 739(Out)
4/1 (with short)	583(In) 454(Out)
4/2 (short)	129
5/1	1221
6/1	576
7/1	610
7/2	78
8/1	690

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	33.2 %	1853	1853
				Arm 7 Ahead	Inf	66.8 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	10.0 %	2019	2019
				Arm 8 Right	20.00	90.0 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.5 %	1869	1869
				Arm 8 Ahead	Inf	91.5 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2045	2045
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.8 %	1844	1844
				Arm 6 Ahead	Inf	61.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 10: '2032 Base PM' (FG10: '2032 Base PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	39	421	363	823
	B	33	0	157	499	689
	C	287	133	0	182	602
	D	260	538	130	0	928
	Tot.	580	710	708	1044	3042

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2032 Base PM
Junction: Unnamed Junction	
1/1 (short)	491
1/2 (with short)	928(In) 437(Out)
2/1 (with short)	823(In) 460(Out)
2/2 (short)	363
3/1 (short)	157
3/2 (with short)	689(In) 532(Out)
4/1 (with short)	602(In) 469(Out)
4/2 (short)	133
5/1	1044
6/1	580
7/1	337
7/2	373
8/1	708

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	53.0 %	1819	1819
				Arm 7 Ahead	Inf	47.0 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	70.3 %	2108	2108
				Arm 8 Right	20.00	29.7 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	8.5 %	1869	1869
				Arm 8 Ahead	Inf	91.5 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2045	2045
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	38.8 %	1843	1843
				Arm 6 Ahead	Inf	61.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 11: '2032 + Committed AM' (FG11: '2032 + Committed AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	45	399	447	891
	B	51	0	139	752	942
	C	314	142	0	175	631
	D	379	637	125	0	1141
	Tot.	744	824	663	1374	3605

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2032 + Committed AM
Junction: Unnamed Junction	
1/1 (short)	945
1/2 (with short)	1141(In) 196(Out)
2/1 (with short)	891(In) 444(Out)
2/2 (short)	447
3/1 (short)	139
3/2 (with short)	942(In) 803(Out)
4/1 (with short)	631(In) 489(Out)
4/2 (short)	142
5/1	1374
6/1	744
7/1	682
7/2	142
8/1	663

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	40.1 %	1841	1841
				Arm 7 Ahead	Inf	59.9 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	36.2 %	2057	2057
				Arm 8 Right	20.00	63.8 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	10.1 %	1866	1866
				Arm 8 Ahead	Inf	89.9 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.6 %	2045	2045
				Arm 6 Right	20.00	6.4 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	35.8 %	1849	1849
				Arm 6 Ahead	Inf	64.2 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 12: '2032 + Committed PM' (FG12: '2032 + Committed PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	51	346	484	881
	B	50	0	103	630	783
	C	401	150	0	201	752
	D	434	586	65	0	1085
	Tot.	885	787	514	1315	3501

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2032 + Committed PM
Junction: Unnamed Junction	
1/1 (short)	624
1/2 (with short)	1085(In) 461(Out)
2/1 (with short)	881(In) 397(Out)
2/2 (short)	484
3/1 (short)	103
3/2 (with short)	783(In) 680(Out)
4/1 (with short)	752(In) 602(Out)
4/2 (short)	150
5/1	1315
6/1	885
7/1	316
7/2	471
8/1	514

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	69.6 %	1790	1790
				Arm 7 Ahead	Inf	30.4 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	85.9 %	2132	2132
				Arm 8 Right	20.00	14.1 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	12.8 %	1861	1861
				Arm 8 Ahead	Inf	87.2 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	92.6 %	2044	2044
				Arm 6 Right	20.00	7.4 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	33.4 %	1853	1853
				Arm 6 Ahead	Inf	66.6 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 13: '2032 + Committed + Dev AM' (FG13: '2032 + Committed + Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	45	399	448	892
	B	51	0	139	766	956
	C	314	142	0	181	637
	D	383	681	142	0	1206
	Tot.	748	868	680	1395	3691

Traffic Lane Flows

Lane	Scenario 13: 2032 + Committed + Dev AM
Junction: Unnamed Junction	
1/1 (short)	970
1/2 (with short)	1206(In) 236(Out)
2/1 (with short)	892(In) 444(Out)
2/2 (short)	448
3/1 (short)	139
3/2 (with short)	956(In) 817(Out)
4/1 (with short)	637(In) 495(Out)
4/2 (short)	142
5/1	1395
6/1	748
7/1	703
7/2	165
8/1	680

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	39.5 %	1842	1842
				Arm 7 Ahead	Inf	60.5 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	39.8 %	2062	2062
				Arm 8 Right	20.00	60.2 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	10.1 %	1866	1866
				Arm 8 Ahead	Inf	89.9 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.8 %	2045	2045
				Arm 6 Right	20.00	6.2 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	36.6 %	1847	1847
				Arm 6 Ahead	Inf	63.4 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ashby Road North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A47 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A47 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Ashby Road South Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2032 + Committed + Dev PM' (FG14: '2032 + Committed + Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	51	346	487	884
	B	50	0	103	670	823
	C	401	150	0	216	767
	D	435	601	71	0	1107
	Tot.	886	802	520	1373	3581

Traffic Lane Flows

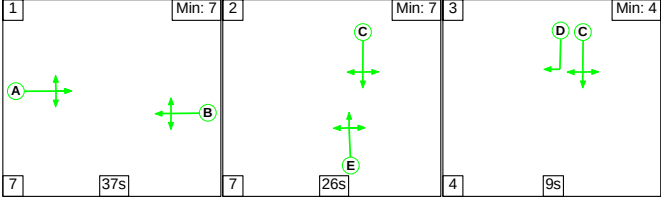
Lane	Scenario 14: 2032 + Committed + Dev PM
Junction: Unnamed Junction	
1/1 (short)	637
1/2 (with short)	1107(In) 470(Out)
2/1 (with short)	884(In) 397(Out)
2/2 (short)	487
3/1 (short)	103
3/2 (with short)	823(In) 720(Out)
4/1 (with short)	767(In) 617(Out)
4/2 (short)	150
5/1	1373
6/1	886
7/1	328
7/2	474
8/1	520

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 West)	3.00	0.00	Y	Arm 6 Left	15.00	68.3 %	1793	1793
				Arm 7 Ahead	Inf	31.7 %		
1/2 (A47 West)	4.00	0.00	N	Arm 7 Ahead	Inf	84.9 %	2131	2131
				Arm 8 Right	20.00	15.1 %		
2/1 (Ashby Road North)	2.70	0.00	Y	Arm 7 Left	15.00	12.8 %	1861	1861
				Arm 8 Ahead	Inf	87.2 %		
2/2 (Ashby Road North)	2.70	0.00	Y	Arm 5 Right	20.00	100.0 %	1753	1753
3/1 (A47 East)	3.00	0.00	Y	Arm 8 Left	15.00	100.0 %	1741	1741
3/2 (A47 East)	3.00	0.00	N	Arm 5 Ahead	Inf	93.1 %	2044	2044
				Arm 6 Right	20.00	6.9 %		
4/1	3.00	0.00	Y	Arm 5 Left	15.00	35.0 %	1850	1850
				Arm 6 Ahead	Inf	65.0 %		
4/2	3.00	0.00	N	Arm 7 Right	20.00	100.0 %	1912	1912
5/1 (A47 West Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Ashby Road North Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A47 East Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A47 East Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
8/1 (Ashby Road South Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

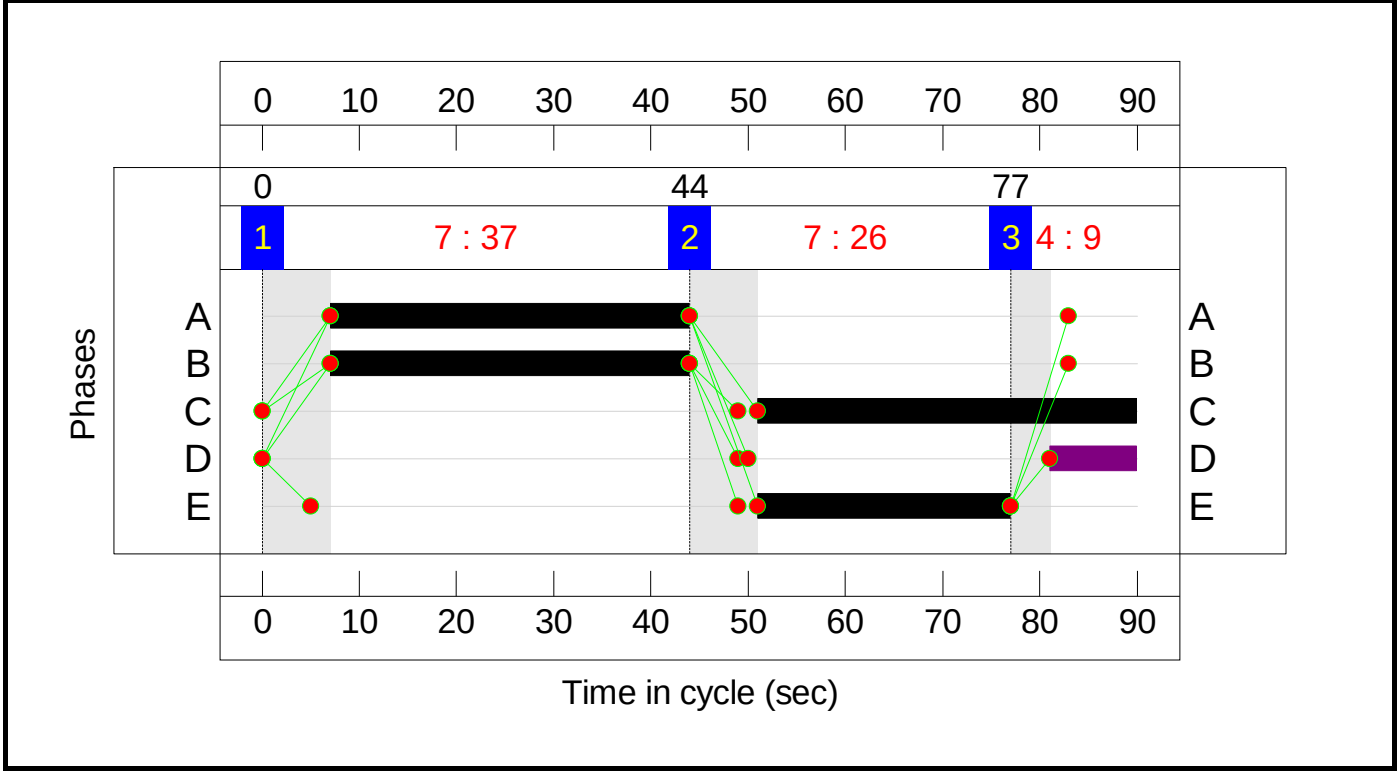
Stage Sequence Diagram



Stage Timings

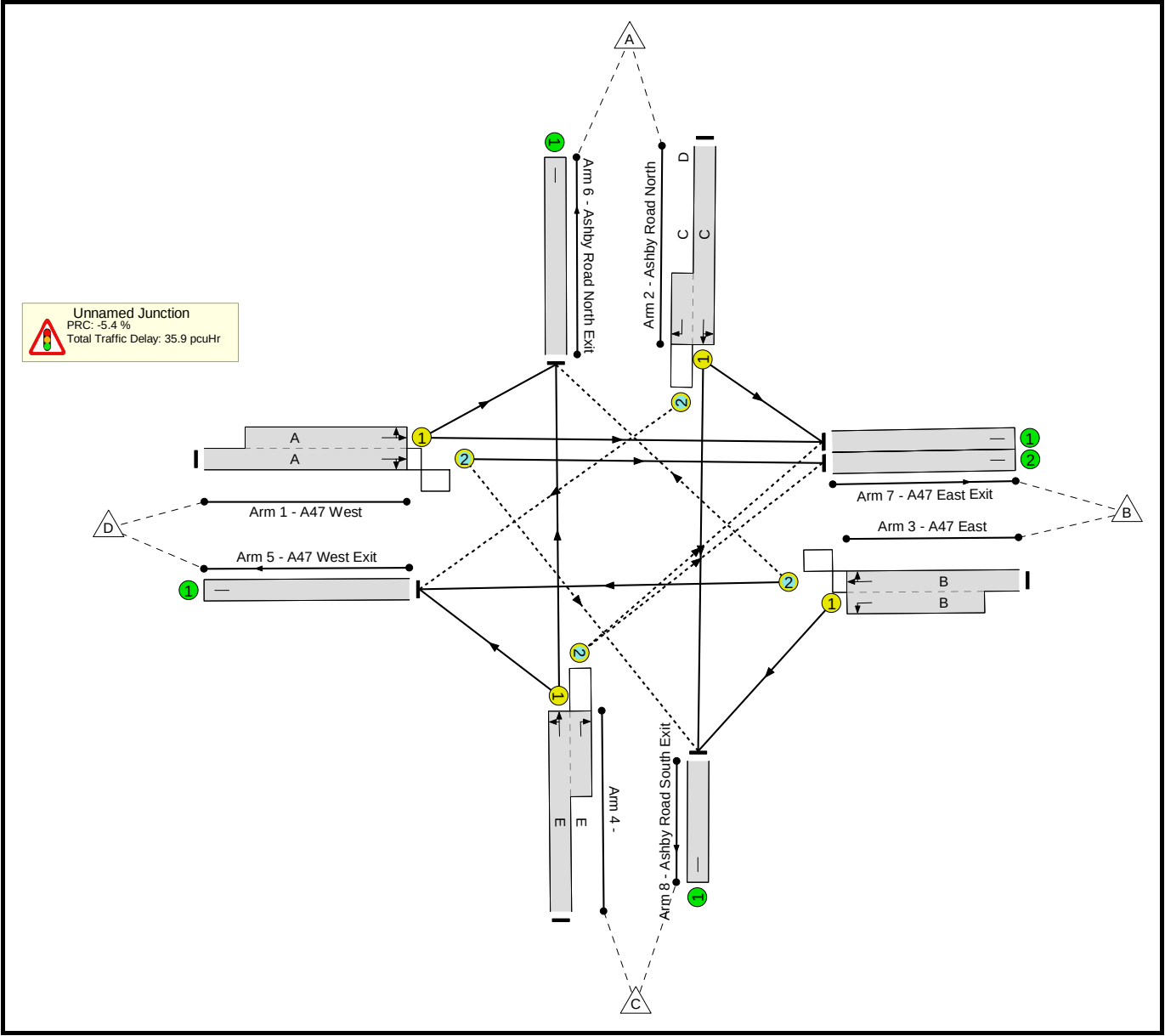
Stage	1	2	3
Duration	37	26	9
Change Point	0	44	77

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.9%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	37	-	842	2109:1818	435+578	92.4 : 76.1%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	39	9	745	1869:1753	438+347	94.9 : 94.9%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	37	-	832	2046:1741	818+174	83.8 : 83.8%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	26	-	546	1843:1912	481+137	88.4 : 88.4%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1142	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	645	Inf	Inf	0.0%

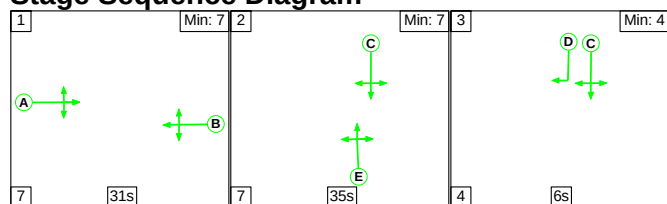
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	268	214	124	18.6	15.3	2.1	35.9	-	-	-	-
Unnamed Junction	-	-	268	214	124	18.6	15.3	2.1	35.9	-	-	-	-
1/2+1/1	842	842	57	0	61	4.7	2.4	0.7	7.8	33.3	8.3	2.4	10.7
2/1+2/2	745	745	53	214	61	4.6	6.9	0.9	12.4	59.9	10.7	6.9	17.6
3/2+3/1	832	832	36	0	2	5.0	2.5	0.1	7.6	32.7	14.9	2.5	17.4
4/1+4/2	546	546	121	0	0	4.3	3.5	0.4	8.2	54.0	11.2	3.5	14.6
5/1	1142	1142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	645	645	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -5.4 Total Delay for Signalled Lanes (pcuHr): 35.93 Cycle Time (s): 90 PRC Over All Lanes (%): -5.4 Total Delay Over All Lanes(pcuHr): 35.93													

Full Input Data And Results

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

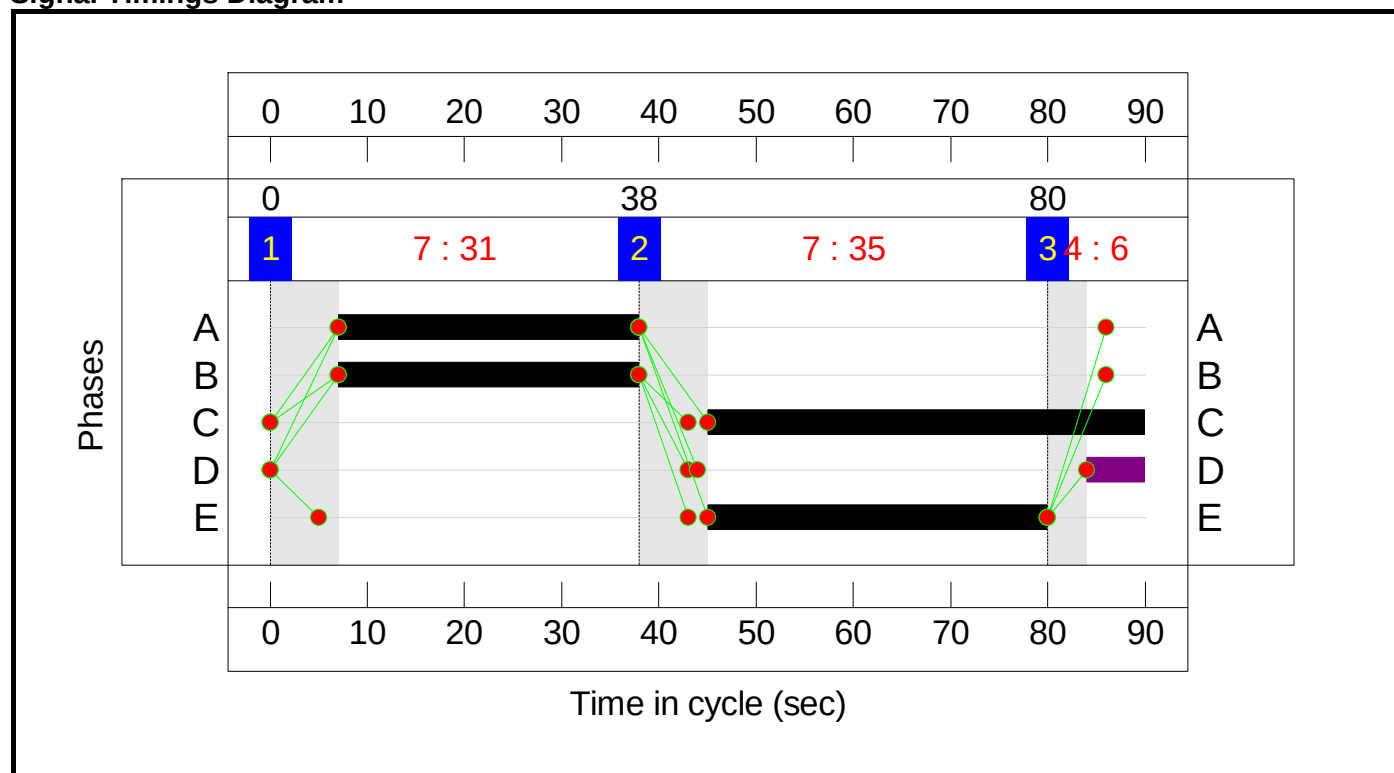
Stage Sequence Diagram



Stage Timings

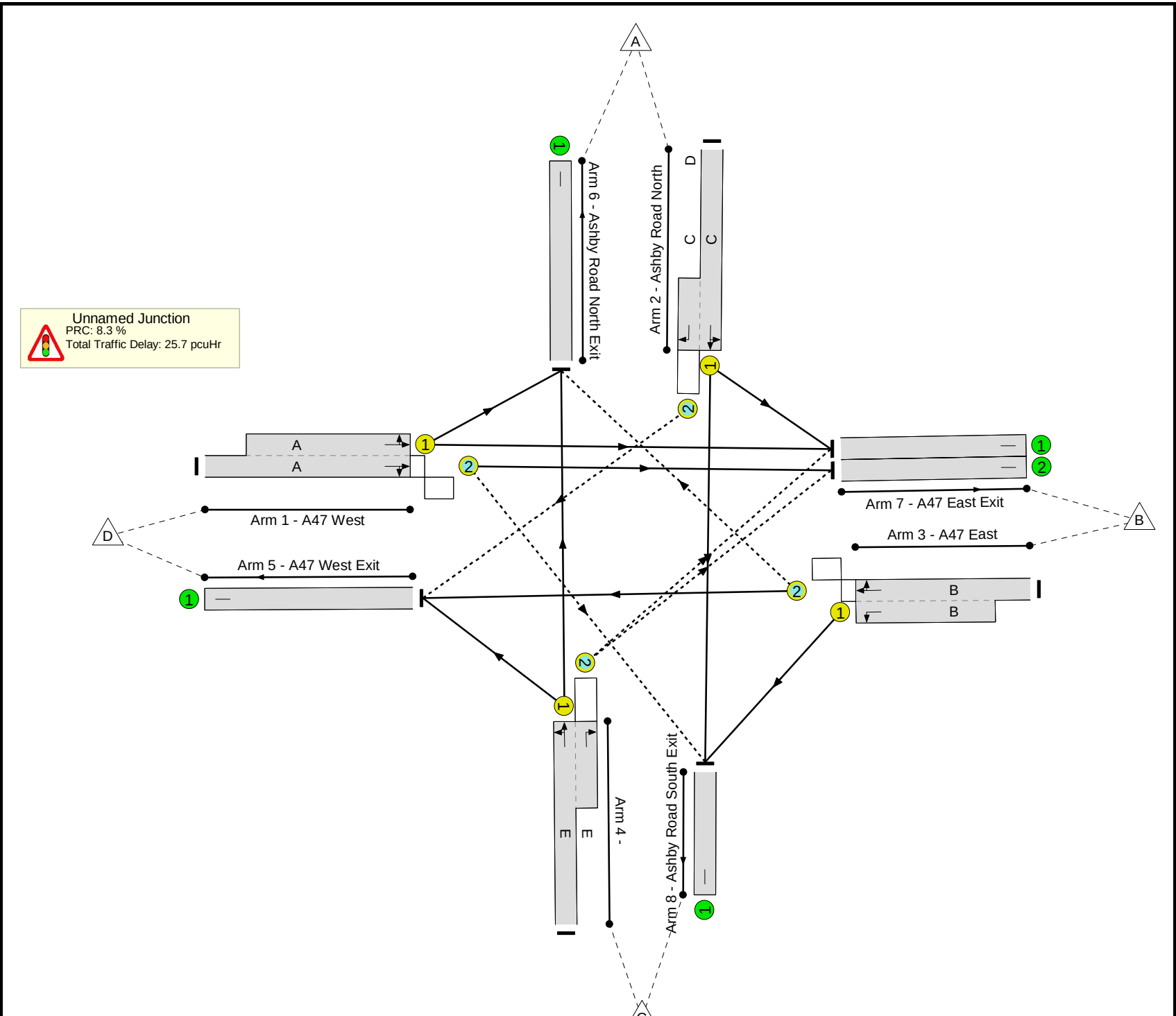
Stage	1	2	3
Duration	31	35	6
Change Point	0	38	80

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	31	-	869	2110:1816	512+585	83.1 : 75.9%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	45	6	771	1869:1753	524+413	82.2 : 82.2%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	31	-	645	2045:1741	701+207	71.0 : 71.0%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	35	-	564	1844:1912	626+178	70.2 : 70.2%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	977	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	365	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	663	Inf	Inf	0.0%

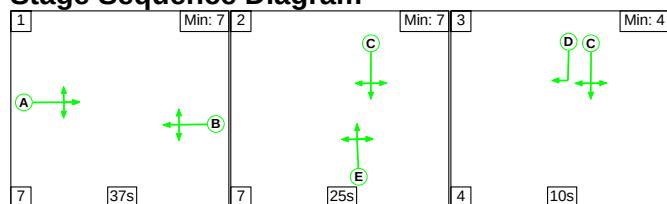
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	427	151	40	17.2	6.5	2.0	25.7	-	-	-	-
Unnamed Junction	-	-	427	151	40	17.2	6.5	2.0	25.7	-	-	-	-
1/2+1/1	869	869	94	0	28	6.0	1.9	0.5	8.4	34.7	10.0	1.9	11.9
2/1+2/2	771	771	178	151	11	3.7	2.3	1.0	7.0	32.6	9.5	2.3	11.8
3/2+3/1	645	645	31	0	0	4.3	1.2	0.1	5.5	30.9	10.5	1.2	11.7
4/1+4/2	564	564	125	0	0	3.3	1.2	0.4	4.8	30.7	9.7	1.2	10.9
5/1	977	977	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	365	365	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	663	663	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 8.3 Total Delay for Signalled Lanes (pcuHr): 25.70 Cycle Time (s): 90 PRC Over All Lanes (%): 8.3 Total Delay Over All Lanes(pcuHr): 25.70													

Full Input Data And Results

Scenario 3: '2027 Base AM' (FG3: '2027 Base AM', Plan 1: 'Network Control Plan 1')

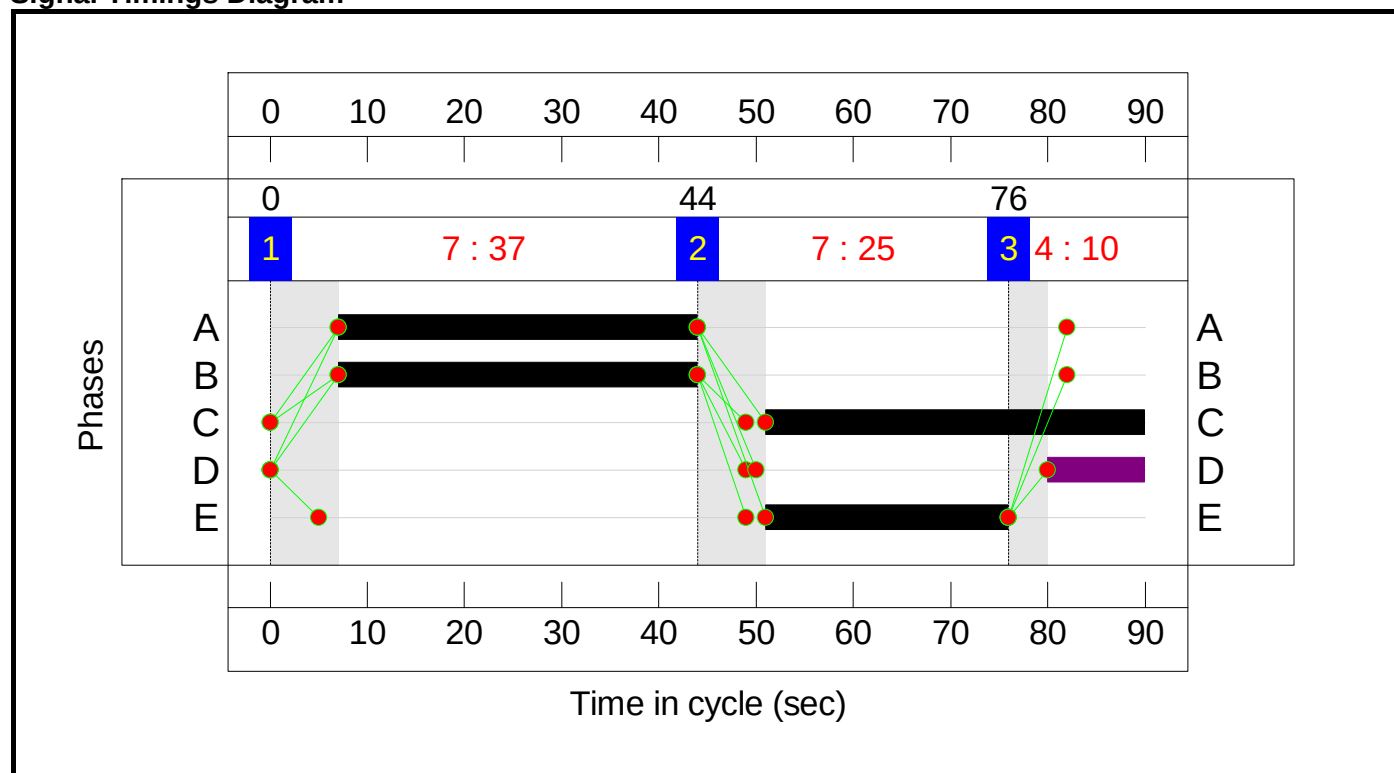
Stage Sequence Diagram



Stage Timings

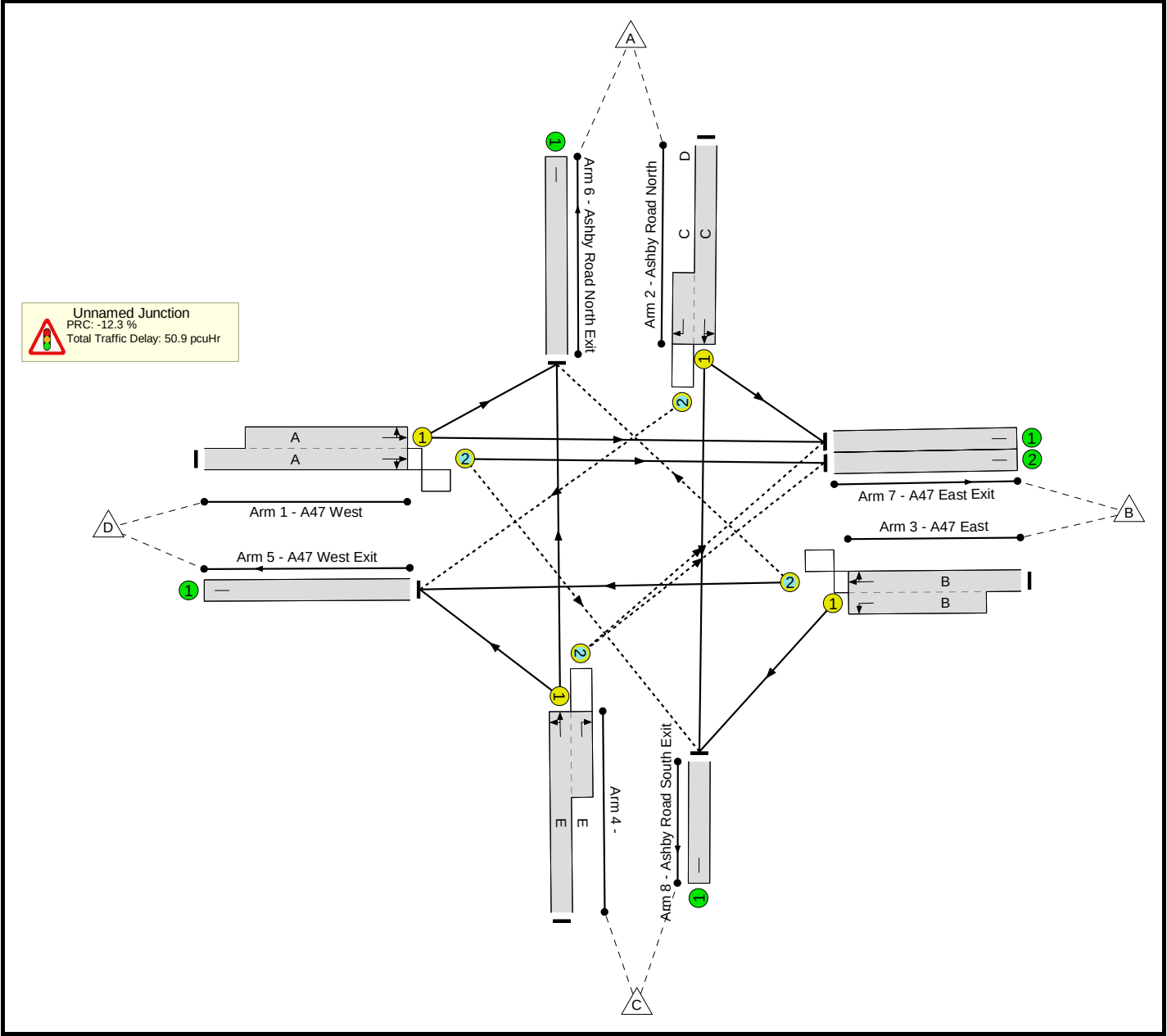
Stage	1	2	3
Duration	37	25	10
Change Point	0	44	76

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	101.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	101.1%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	37	-	870	2096:1833	324+701	100.1 : 77.9%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	39	10	772	1869:1753	427+336	101.1 : 101.1%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	37	-	866	2046:1741	819+173	87.3 : 87.3%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	25	-	565	1843:1912	465+132	94.6 : 94.6%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1182	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%

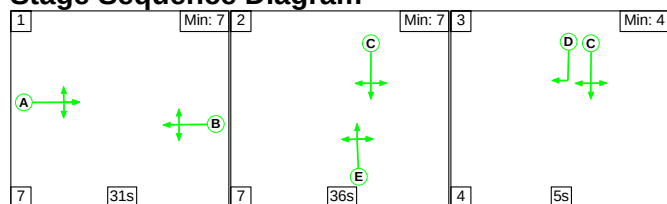
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	232	234	161	20.1	28.5	2.3	50.9	-	-	-	-
Unnamed Junction	-	-	232	234	161	20.1	28.5	2.3	50.9	-	-	-	-
1/2+1/1	870	870	43	0	79	5.0	2.9	0.8	8.7	36.0	11.2	2.9	14.1
2/1+2/2	772	764	23	234	80	5.1	16.1	0.9	22.0	102.8	11.8	16.1	27.9
3/2+3/1	866	866	42	0	2	5.3	3.3	0.1	8.7	36.1	16.0	3.3	19.2
4/1+4/2	565	565	125	0	0	4.7	6.3	0.4	11.5	73.0	11.9	6.3	18.3
5/1	1178	1178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	264	264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -12.3 Total Delay for Signalled Lanes (pcuHr): 50.87 Cycle Time (s): 90 PRC Over All Lanes (%): -12.3 Total Delay Over All Lanes(pcuHr): 50.87													

Full Input Data And Results

Scenario 4: '2027 Base PM' (FG4: '2027 Base PM', Plan 1: 'Network Control Plan 1')

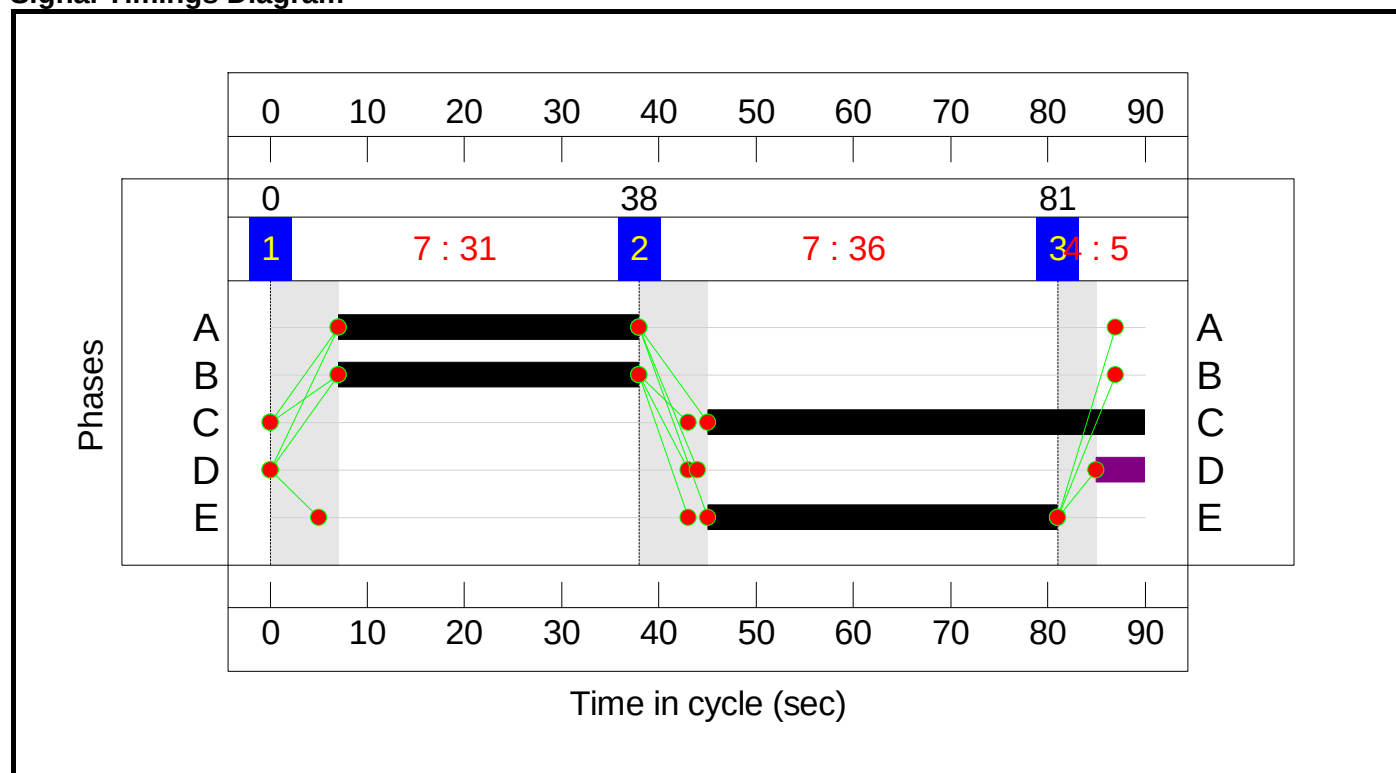
Stage Sequence Diagram



Stage Timings

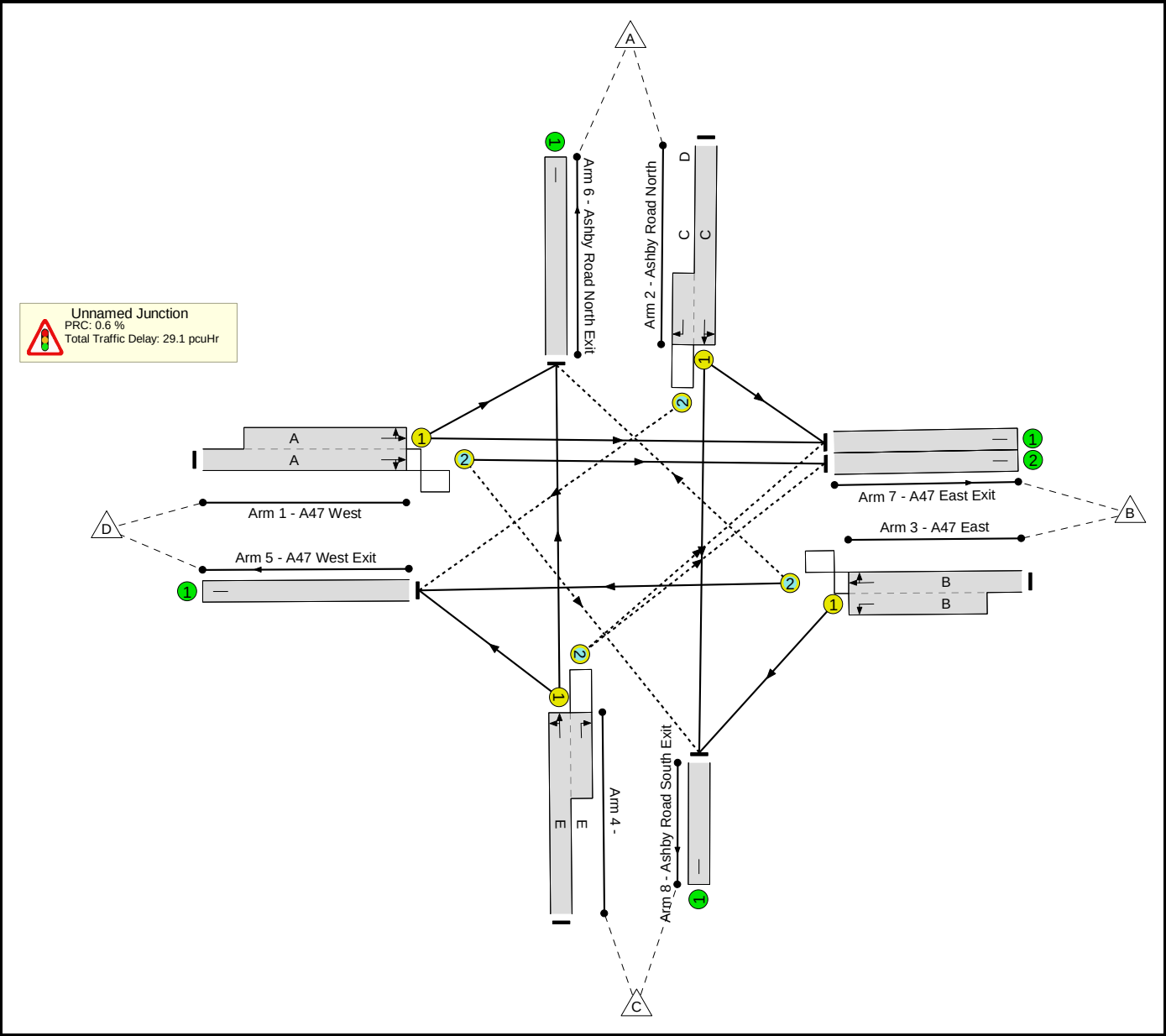
Stage	1	2	3
Duration	31	36	5
Change Point	0	38	81

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	31	-	899	2108:1818	478+586	89.5 : 80.4%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	45	5	797	1869:1753	502+395	88.9 : 88.9%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	31	-	667	2045:1741	701+207	73.4 : 73.4%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	36	-	583	1844:1912	642+182	70.7 : 70.7%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	366	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	686	Inf	Inf	0.0%

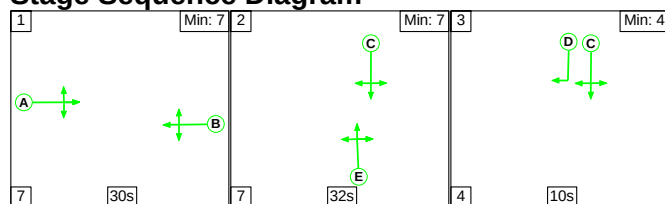
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 5: '2027 + Committed AM' (FG5: '2027 + Committed AM', Plan 1: 'Network Control Plan 1')

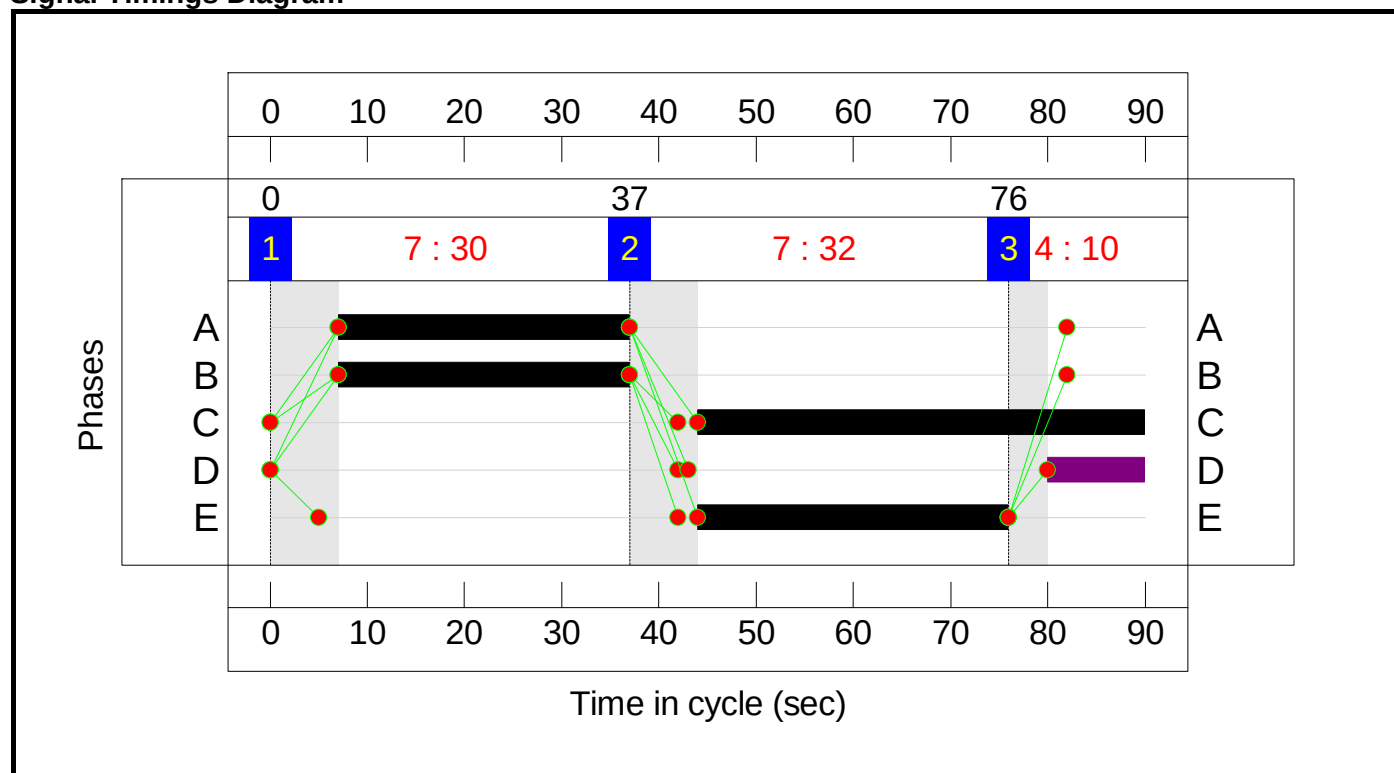
Stage Sequence Diagram



Stage Timings

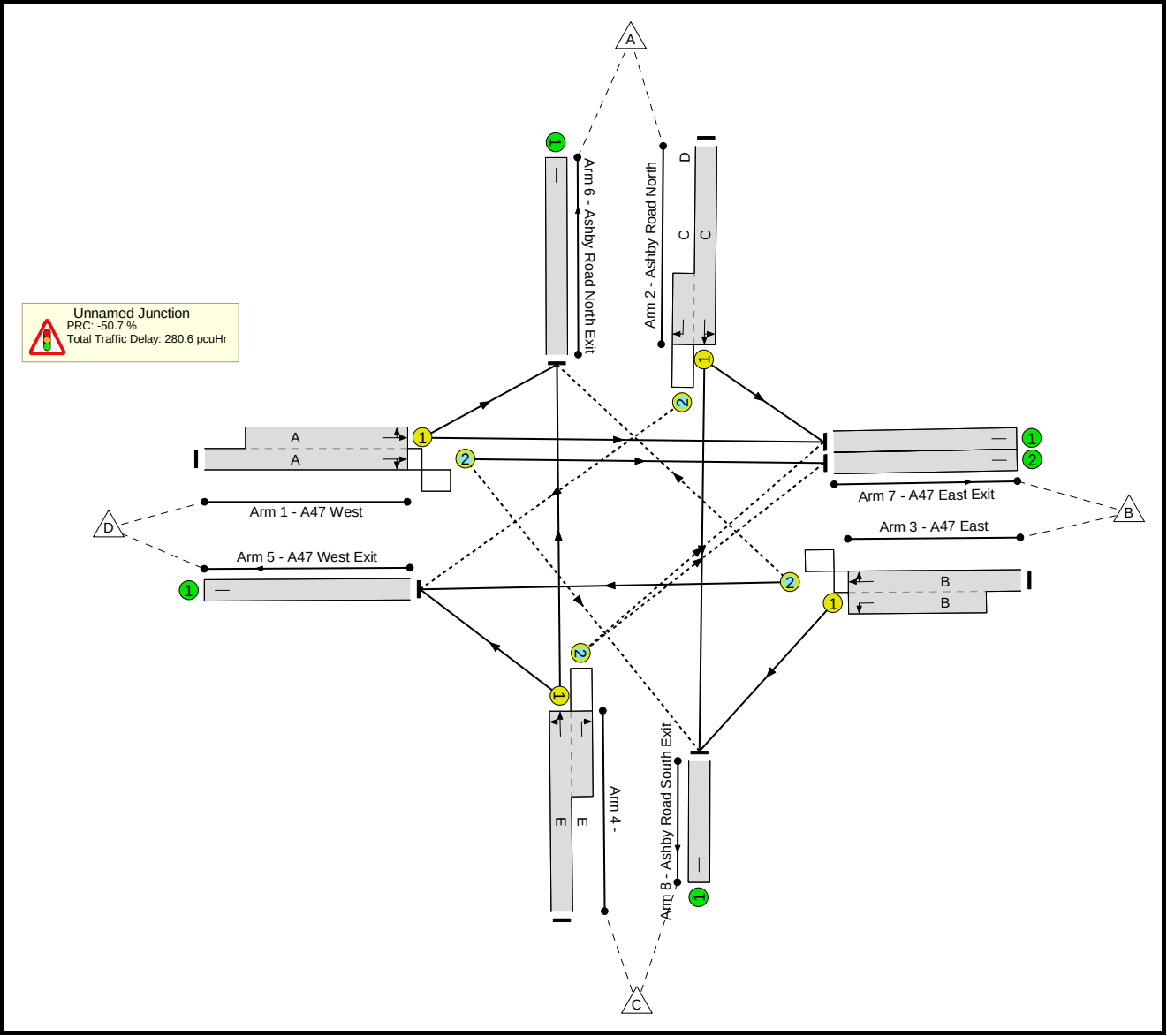
Stage	1	2	3
Duration	30	32	10
Change Point	0	37	76

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	135.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	135.7%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	30	-	1112	2082:1835	190+632	135.7 : 135.1%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	46	10	865	1866:1753	406+410	106.0 : 106.0%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	30	-	913	2045:1741	695+119	112.2 : 112.2%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	32	-	613	1849:1912	577+168	82.3 : 82.3%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1335	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	641	Inf	Inf	0.0%

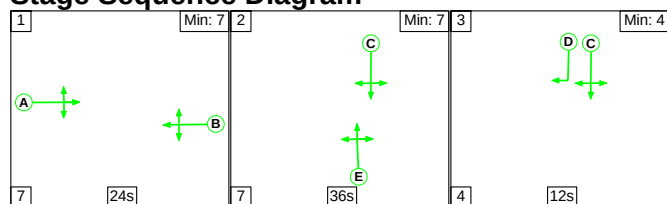
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	235	234	204	43.8	234.1	2.7	280.6	-	-	-	-
Unnamed Junction	-	-	235	234	204	43.8	234.1	2.7	280.6	-	-	-	-
1/2+1/1	1112	816	0	0	80	21.1	146.8	1.0	168.9	546.9	34.8	146.8	181.6
2/1+2/2	865	816	97	234	80	7.0	31.3	1.1	39.4	164.0	18.6	31.3	49.9
3/2+3/1	913	814	0	0	44	11.5	53.8	0.2	65.5	258.2	25.5	53.8	79.3
4/1+4/2	613	613	138	0	0	4.1	2.3	0.3	6.7	39.6	11.9	2.3	14.1
5/1	1231	1231	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	623	623	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	468	468	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -50.7 Total Delay for Signalled Lanes (pcuHr): 280.56 Cycle Time (s): 90 PRC Over All Lanes (%): -50.7 Total Delay Over All Lanes(pcuHr): 280.56													

Full Input Data And Results

Scenario 6: '2027 + Committed PM' (FG6: '2027 + Committed PM', Plan 1: 'Network Control Plan 1')

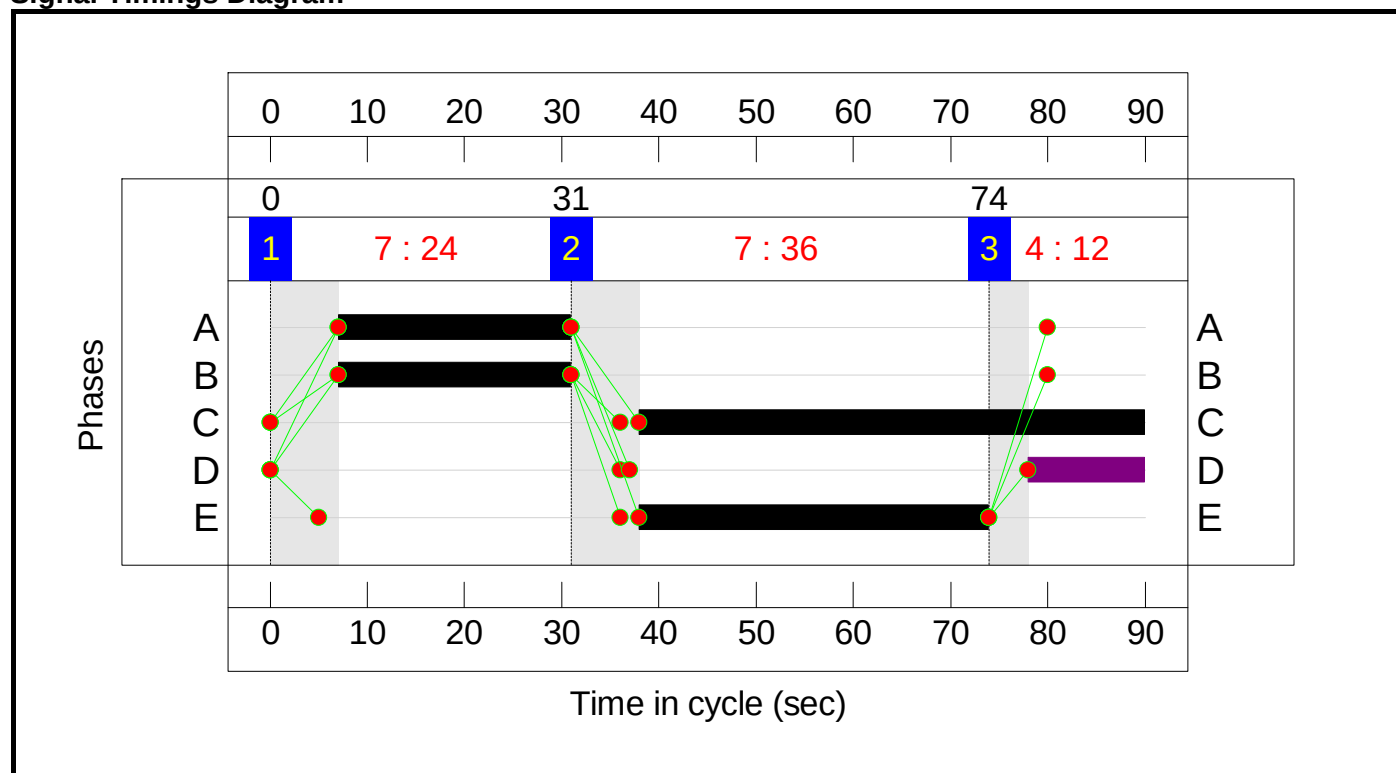
Stage Sequence Diagram



Stage Timings

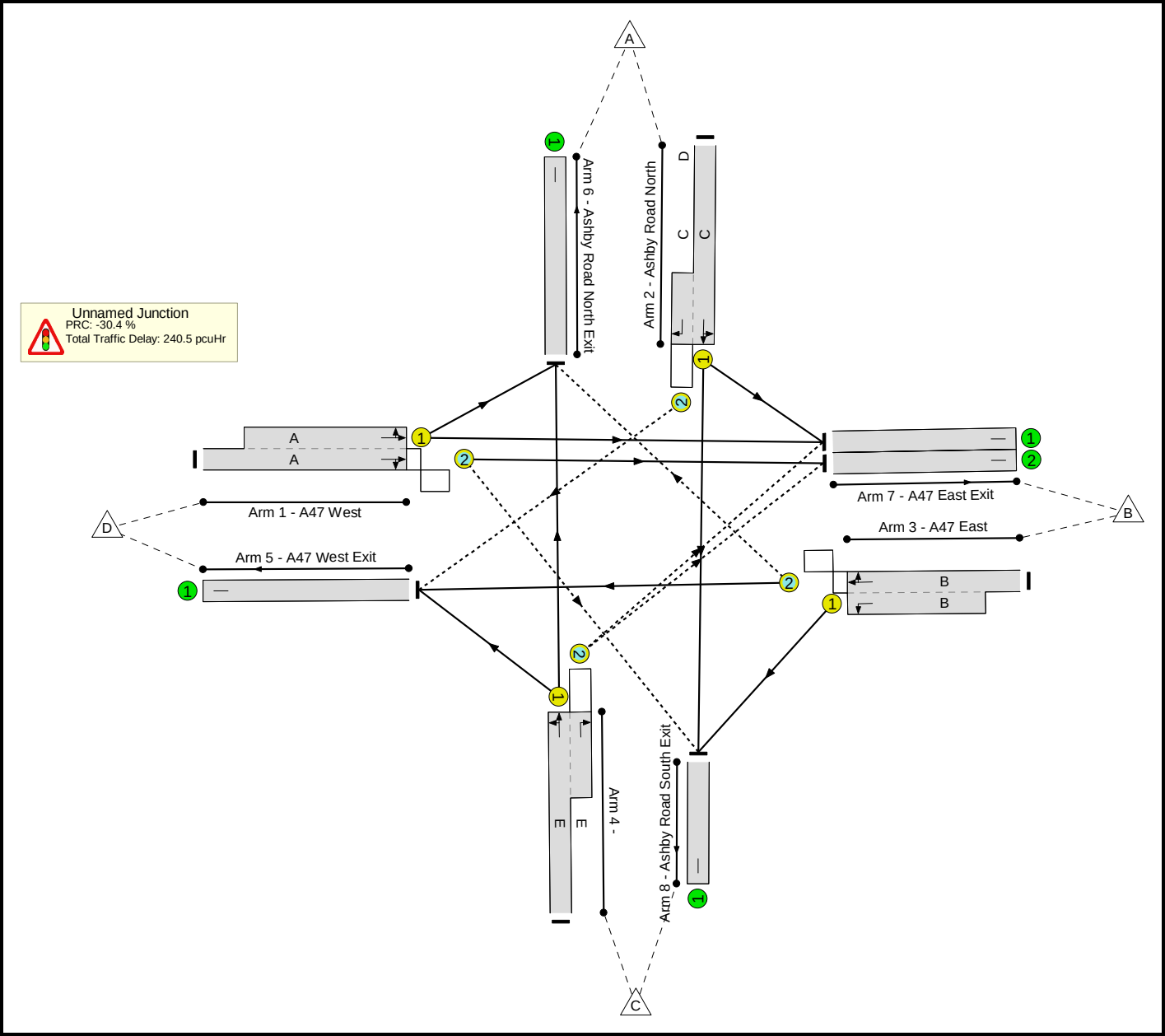
Stage	1	2	3
Duration	24	36	12
Change Point	0	31	74

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	117.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	117.4%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	24	-	1056	2135:1782	417+495	115.8 : 115.8%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	52	12	855	1861:1753	332+410	115.2 : 115.2%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	24	-	761	2044:1741	565+84	117.4 : 116.8%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	36	-	733	1853:1912	655+163	89.7 : 89.7%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1281	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%

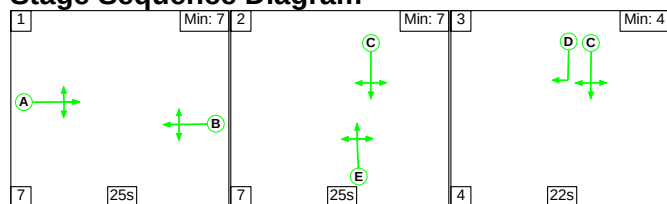
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	206	273	171	39.9	198.8	1.8	240.5	-	-	-	-
Unnamed Junction	-	-	206	273	171	39.9	198.8	1.8	240.5	-	-	-	-
1/2+1/1	1056	912	0	0	53	13.9	75.4	0.2	89.5	305.2	22.0	75.4	97.4
2/1+2/2	855	742	60	273	76	10.0	60.1	1.3	71.4	300.8	21.8	60.1	81.9
3/2+3/1	761	652	0	0	42	11.2	59.3	0.1	70.7	334.4	21.9	59.3	81.2
4/1+4/2	733	733	146	0	0	4.8	4.0	0.1	8.9	43.5	15.4	4.0	19.4
5/1	1130	1130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	437	437	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	425	425	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -30.4 Total Delay for Signalled Lanes (pcuHr): 240.52 Cycle Time (s): 90 PRC Over All Lanes (%): -30.4 Total Delay Over All Lanes(pcuHr): 240.52													

Full Input Data And Results

Scenario 7: '2027 + Committed + Dev AM' (FG7: '2027 + Committed + Development AM', Plan 1: 'Network Control Plan 1')

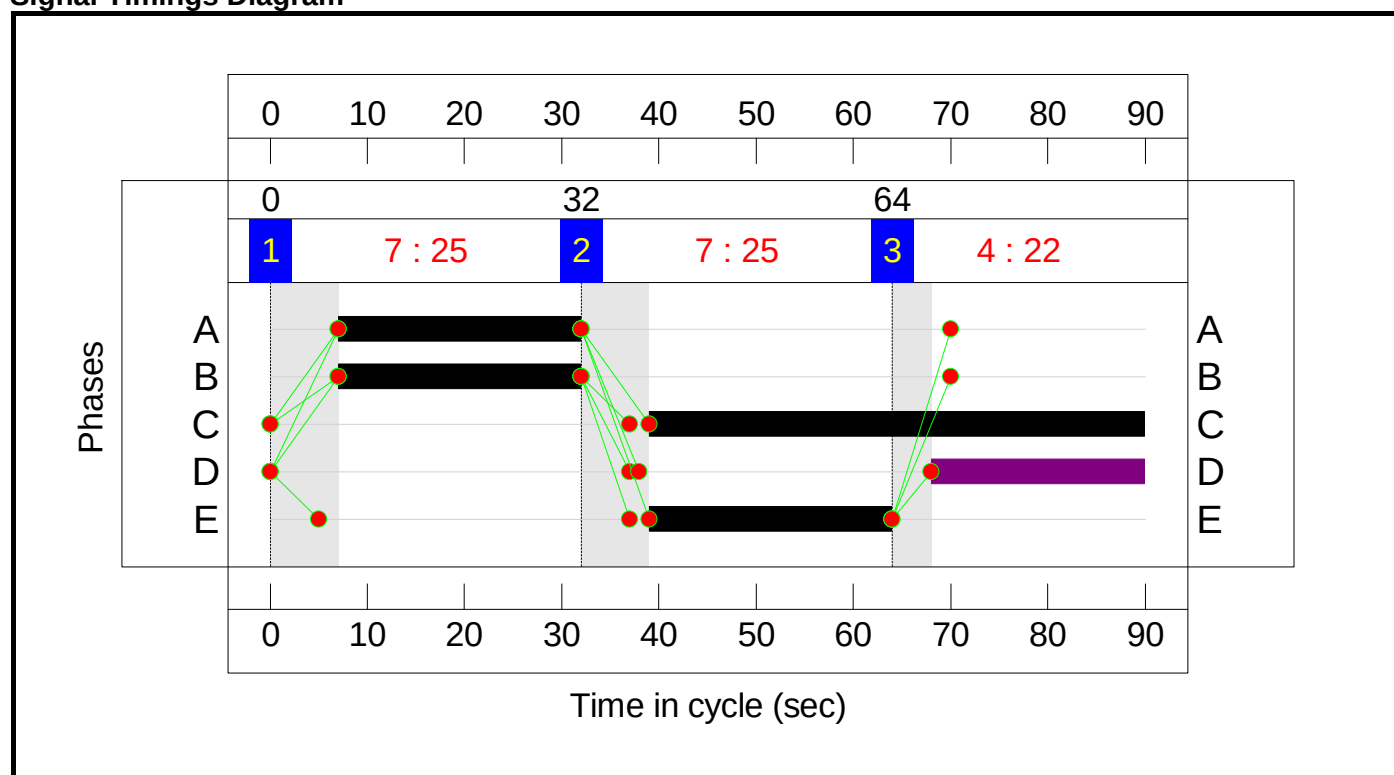
Stage Sequence Diagram



Stage Timings

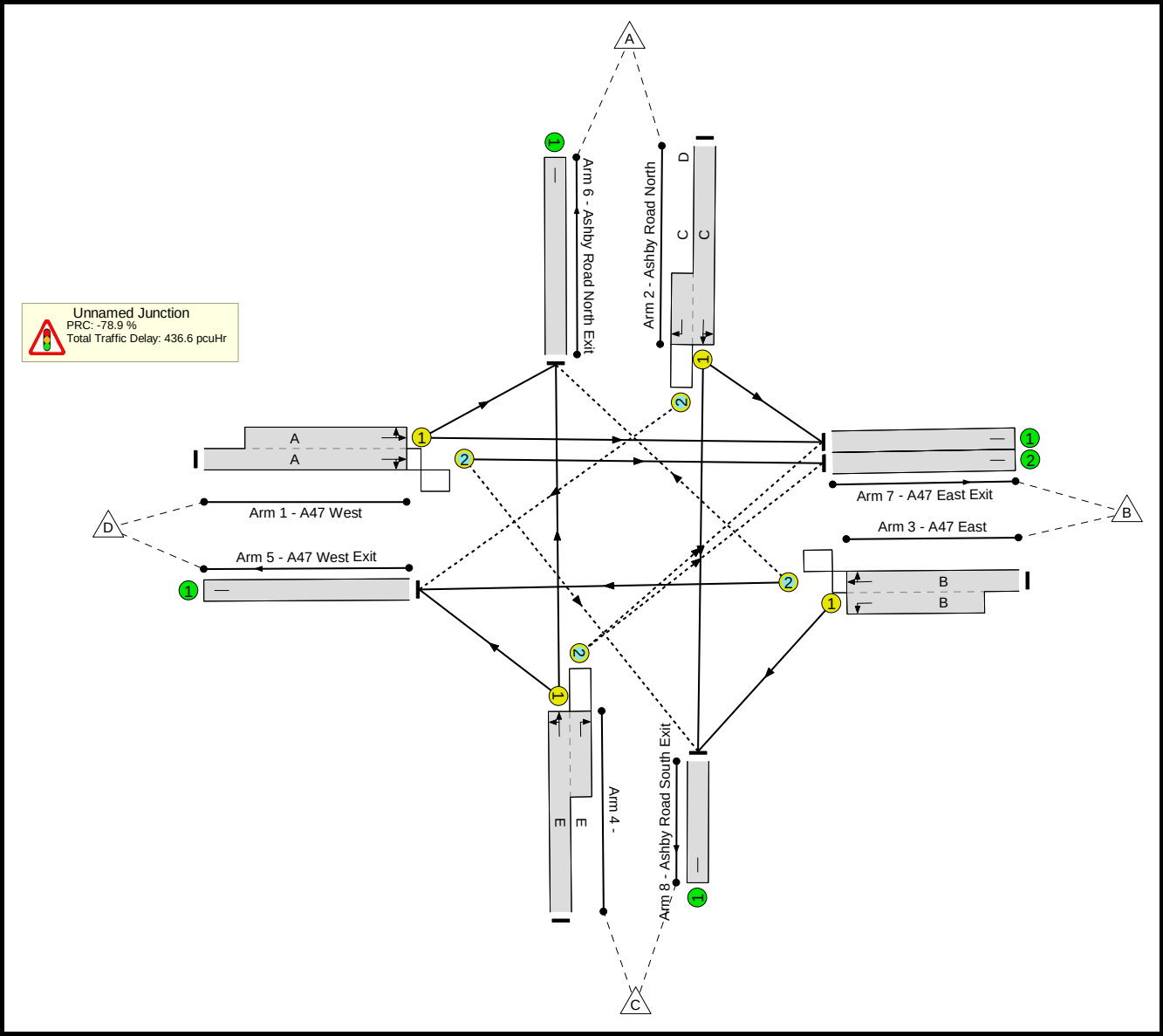
Stage	1	2	3
Duration	25	25	22
Change Point	0	32	64

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	161.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	161.0%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	25	-	1177	2090:1833	207+530	161.0 : 159.2%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	51	22	867	1866:1753	425+432	101.2 : 101.2%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	25	-	927	2046:1741	591+100	134.2 : 134.2%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	25	-	618	1848:1912	465+134	103.2 : 103.2%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1356	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	265	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%

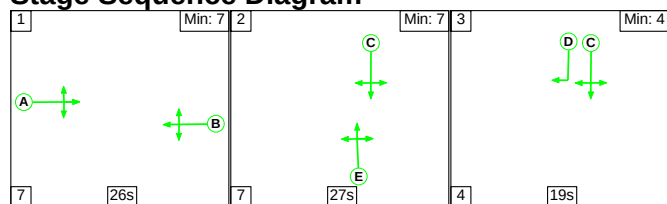
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	134	401	147	57.5	376.9	2.2	436.6	-	-	-	-
Unnamed Junction	-	-	134	401	147	57.5	376.9	2.2	436.6	-	-	-	-
1/2+1/1	1177	730	0	0	80	29.0	221.3	0.9	251.2	768.4	39.0	221.3	260.3
2/1+2/2	867	857	1	401	30	4.5	17.5	0.8	22.8	94.6	11.0	17.5	28.5
3/2+3/1	927	691	0	0	37	18.1	120.0	0.1	138.2	536.7	29.4	120.0	149.3
4/1+4/2	618	599	134	0	0	5.9	18.2	0.3	24.4	141.9	14.6	18.2	32.7
5/1	1156	1156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	568	568	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	180	180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -78.9 Total Delay for Signalled Lanes (pcuHr): 436.58 Cycle Time (s): 90 PRC Over All Lanes (%): -78.9 Total Delay Over All Lanes(pcuHr): 436.58													

Full Input Data And Results

Scenario 8: '2027 + Committed + Dev PM' (FG8: '2027 + Committed + Development PM', Plan 1: 'Network Control Plan 1')

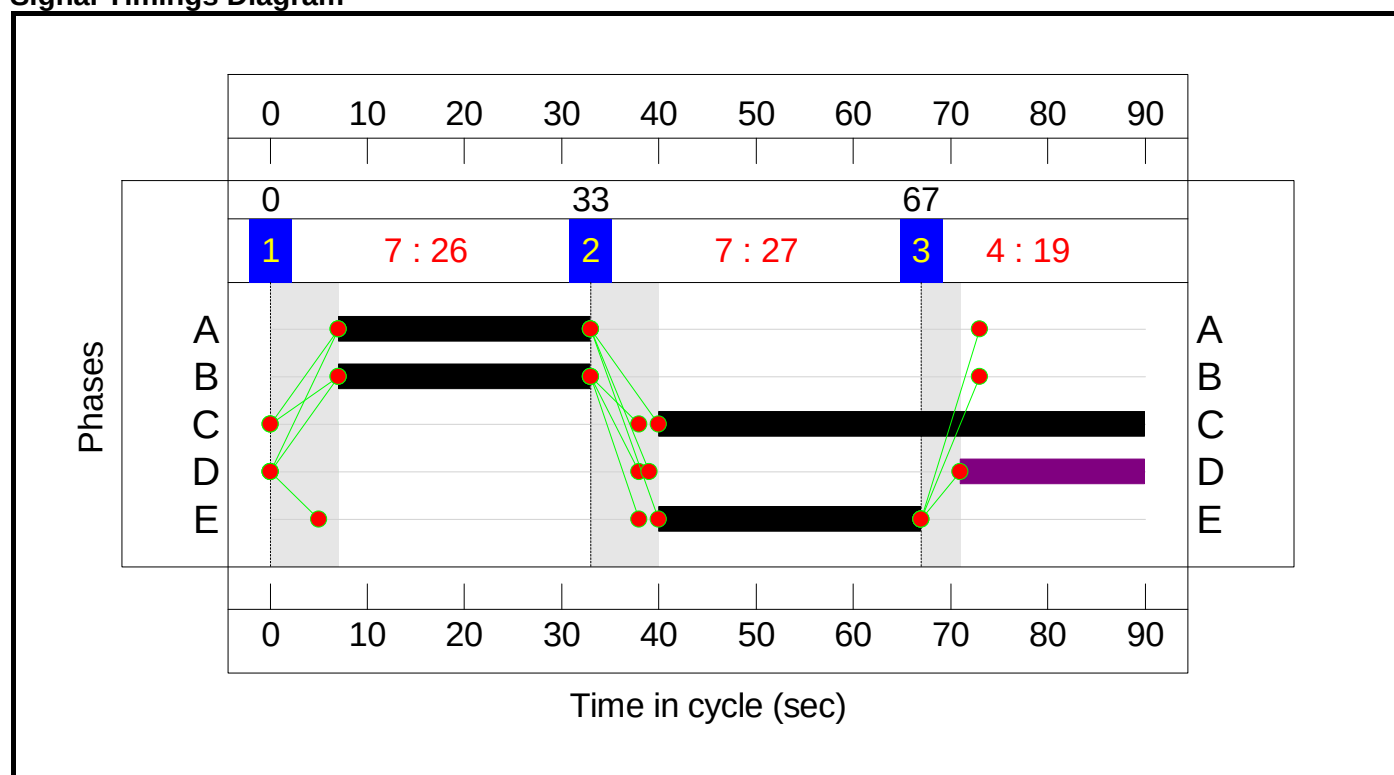
Stage Sequence Diagram



Stage Timings

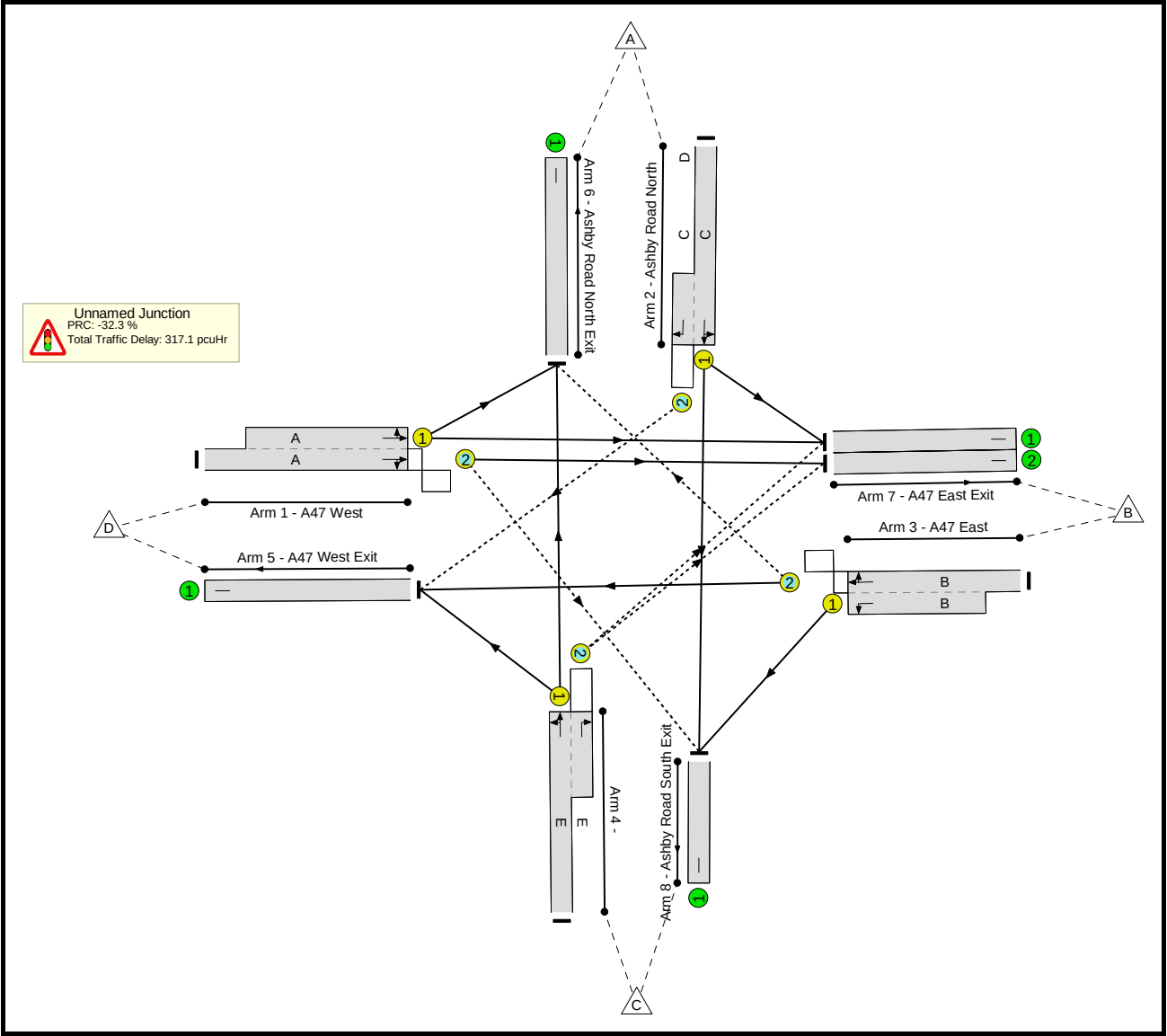
Stage	1	2	3
Duration	26	27	19
Change Point	0	33	67

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	119.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	119.1%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	26	-	1079	2131:1794	378+538	117.8 : 117.8%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	50	19	859	1861:1753	329+409	116.2 : 116.2%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	26	-	801	2044:1741	608+85	115.7 : 114.6%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	27	-	749	1850:1912	506+123	119.1 : 119.1%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1341	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	868	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	330	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%

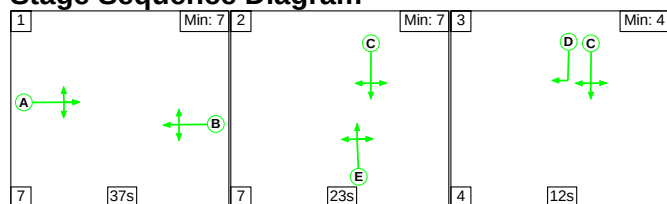
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 9: '2032 Base AM' (FG9: '2032 Base AM', Plan 1: 'Network Control Plan 1')

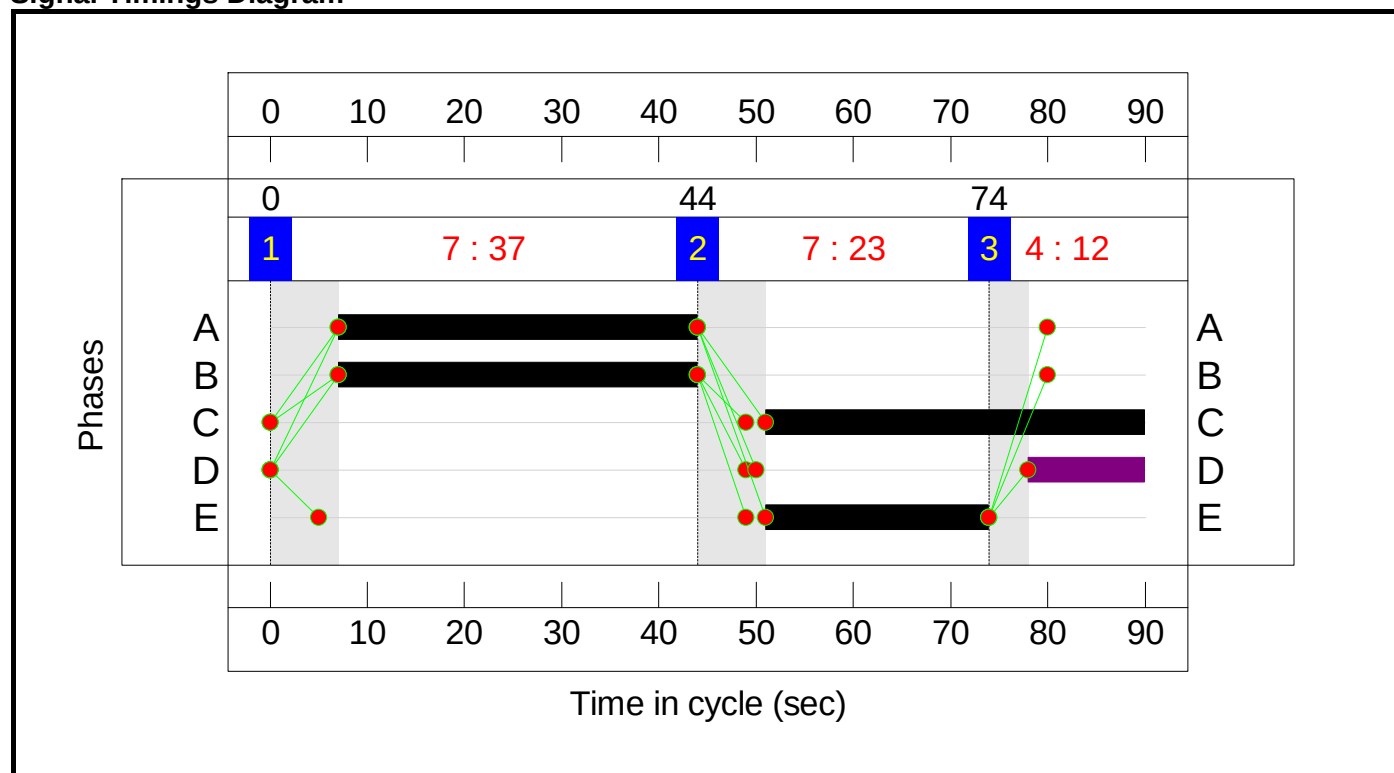
Stage Sequence Diagram



Stage Timings

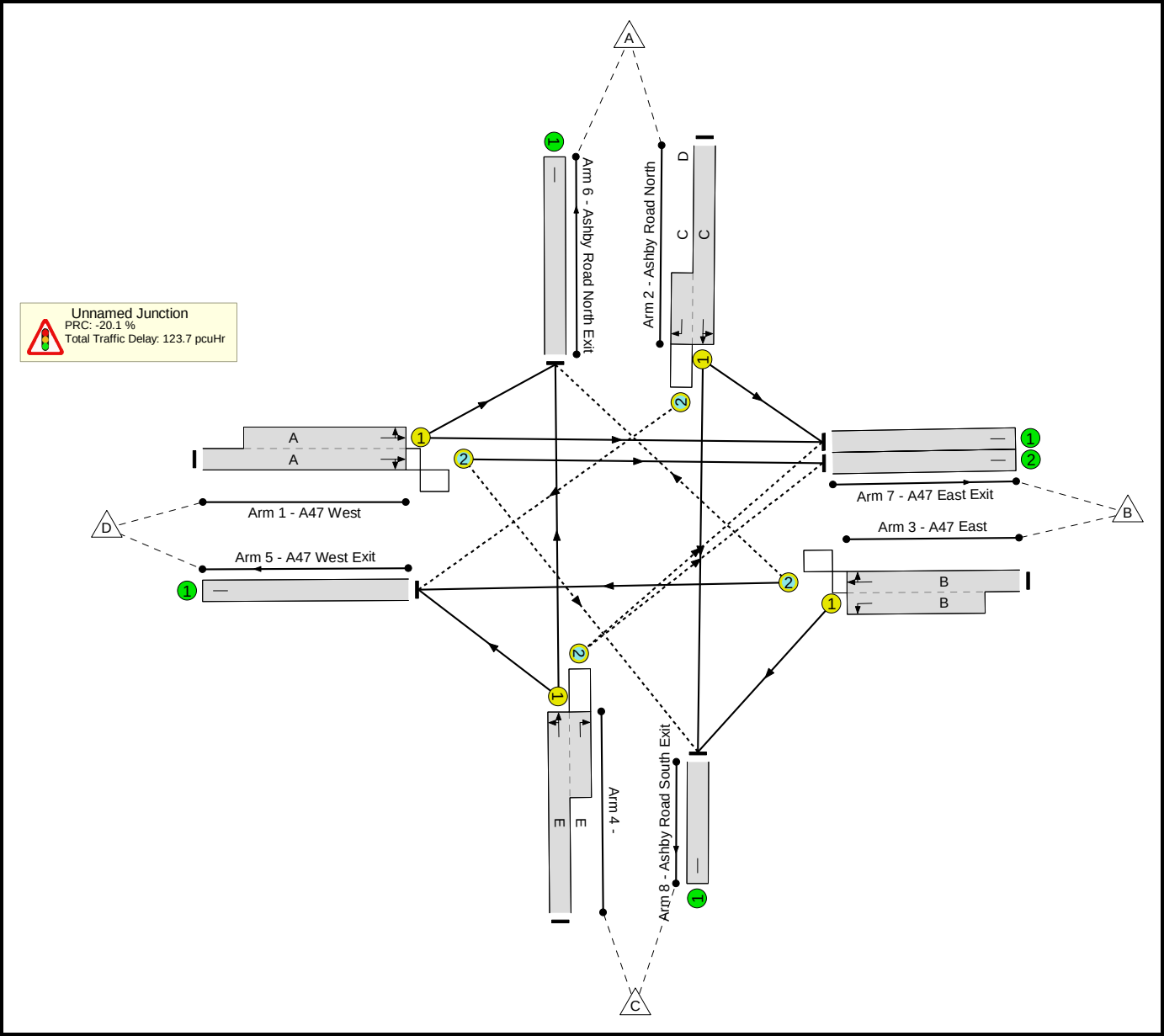
Stage	1	2	3
Duration	37	23	12
Change Point	0	44	74

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

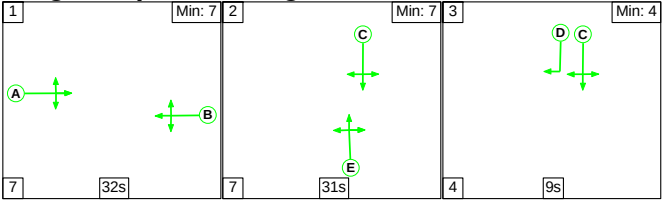
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	108.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	108.1%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	37	-	899	2019:1853	130+709	108.1 : 107.1%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	39	12	798	1869:1753	417+329	107.0 : 107.0%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	37	-	895	2045:1741	818+173	90.3 : 90.3%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	23	-	583	1844:1912	433+123	104.9 : 104.9%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1221	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	610	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	78	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

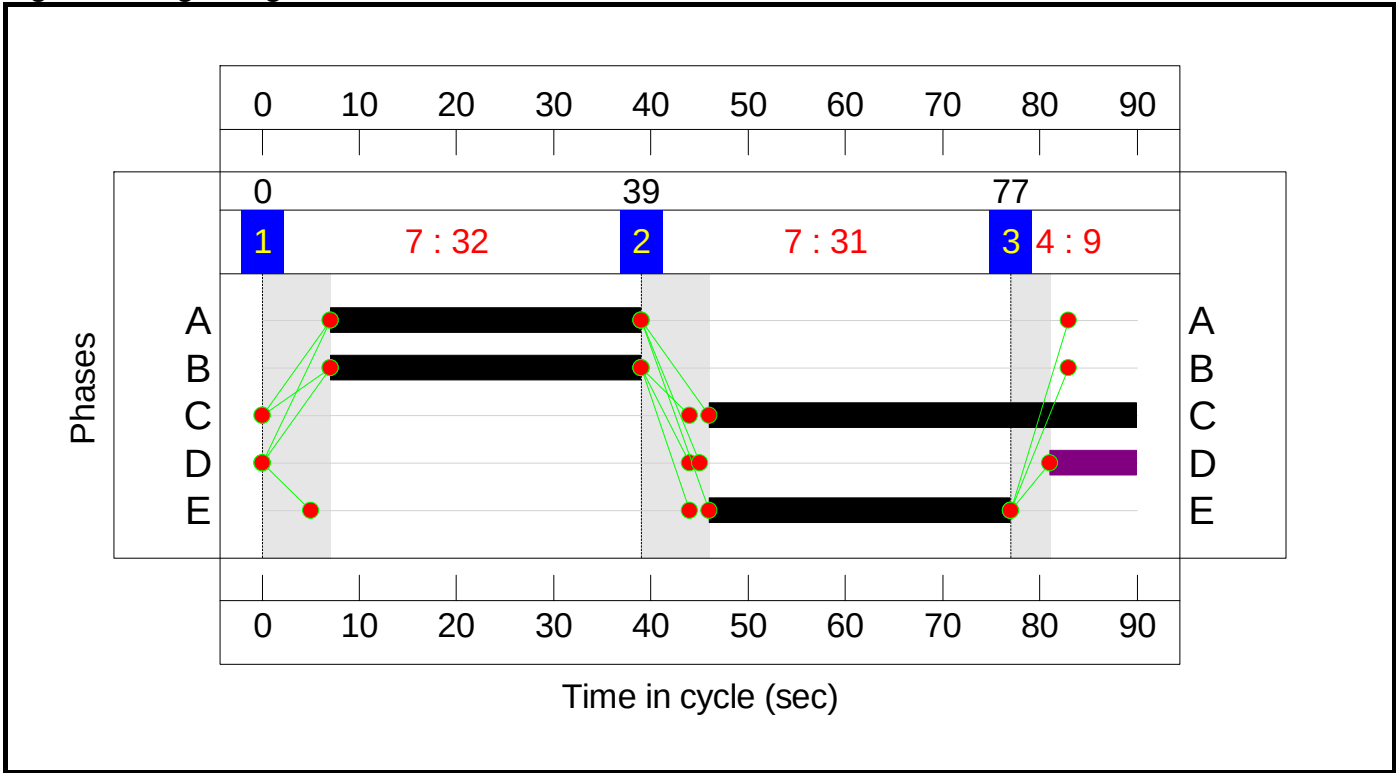
Stage Sequence Diagram



Stage Timings

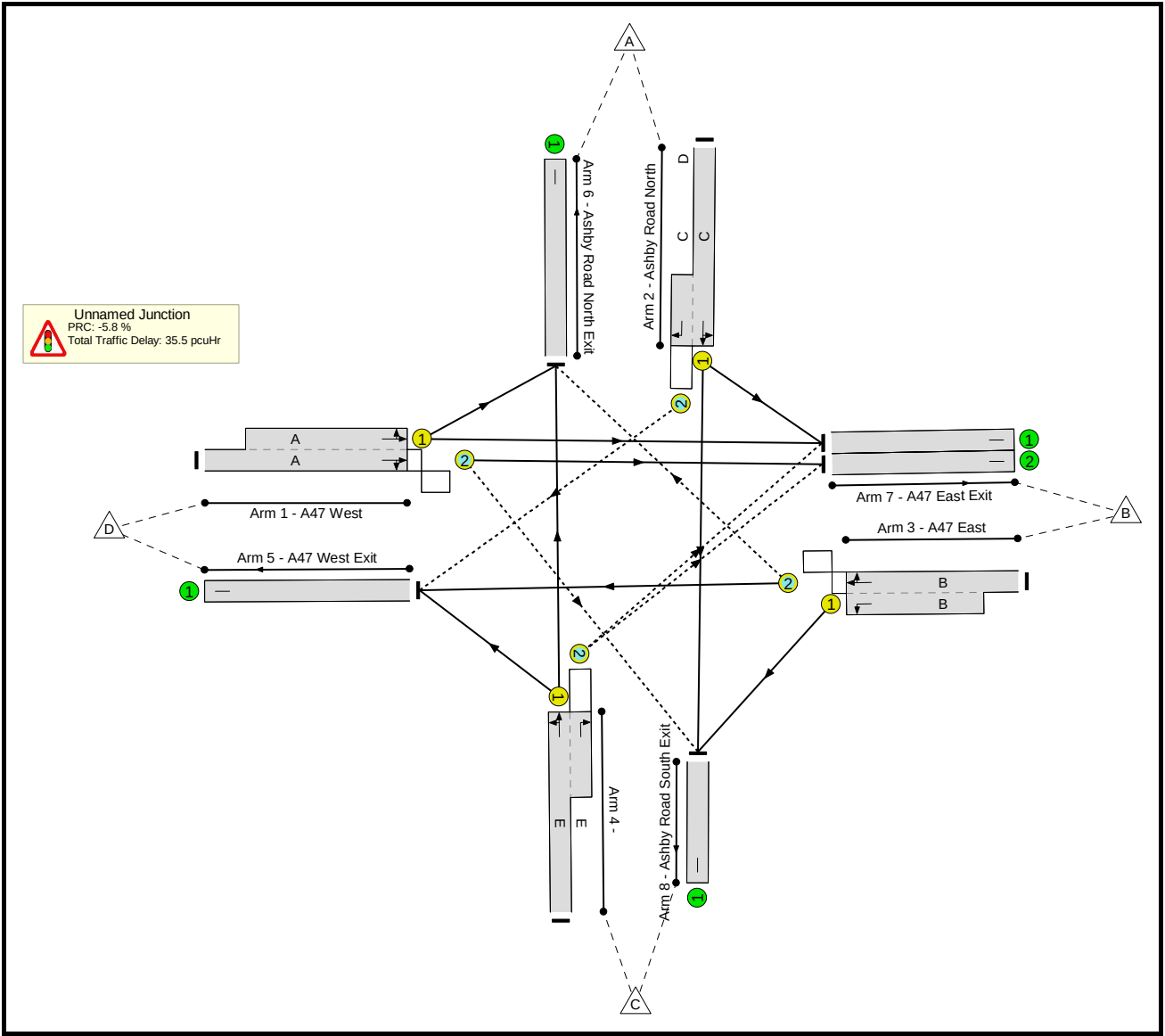
Stage	1	2	3
Duration	32	31	9
Change Point	0	39	77

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

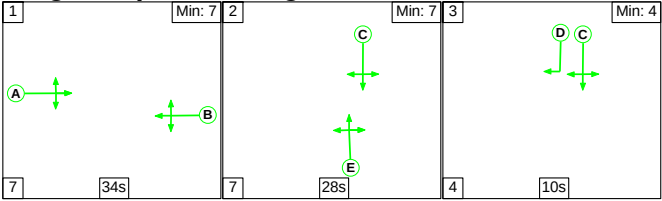
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	95.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	95.2%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	32	-	928	2108:1819	495+606	88.4 : 81.0%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	44	9	823	1869:1753	483+381	95.2 : 95.2%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	32	-	689	2045:1741	718+212	74.1 : 74.1%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	31	-	602	1843:1912	562+159	83.5 : 83.5%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1044	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	580	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	708	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	341	214	104	19.6	13.8	2.2	35.5	-	-	-	-
Unnamed Junction	-	-	341	214	104	19.6	13.8	2.2	35.5	-	-	-	-
1/2+1/1	928	928	88	0	42	6.4	2.6	0.6	9.6	37.1	10.6	2.6	13.2
2/1+2/2	823	823	87	214	62	4.5	7.3	1.1	12.9	56.5	11.6	7.3	18.9
3/2+3/1	689	689	33	0	0	4.5	1.4	0.1	6.0	31.2	11.4	1.4	12.8
4/1+4/2	602	602	133	0	0	4.2	2.4	0.4	7.1	42.2	11.8	2.4	14.3
5/1	1044	1044	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	580	580	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	708	708	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -5.8 Total Delay for Signalled Lanes (pcuHr): 35.52 Cycle Time (s): 90 PRC Over All Lanes (%): -5.8 Total Delay Over All Lanes(pcuHr): 35.52													

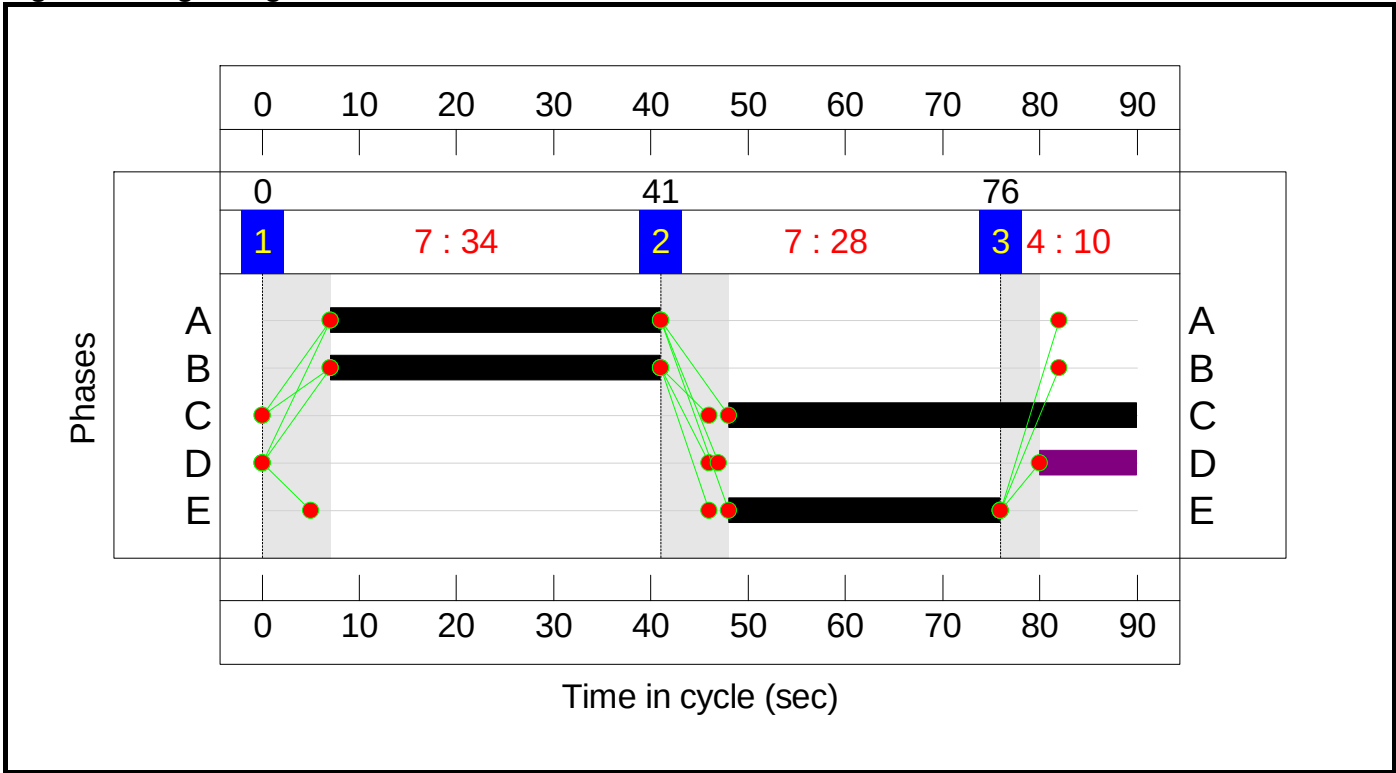
Stage Sequence Diagram



Stage Timings

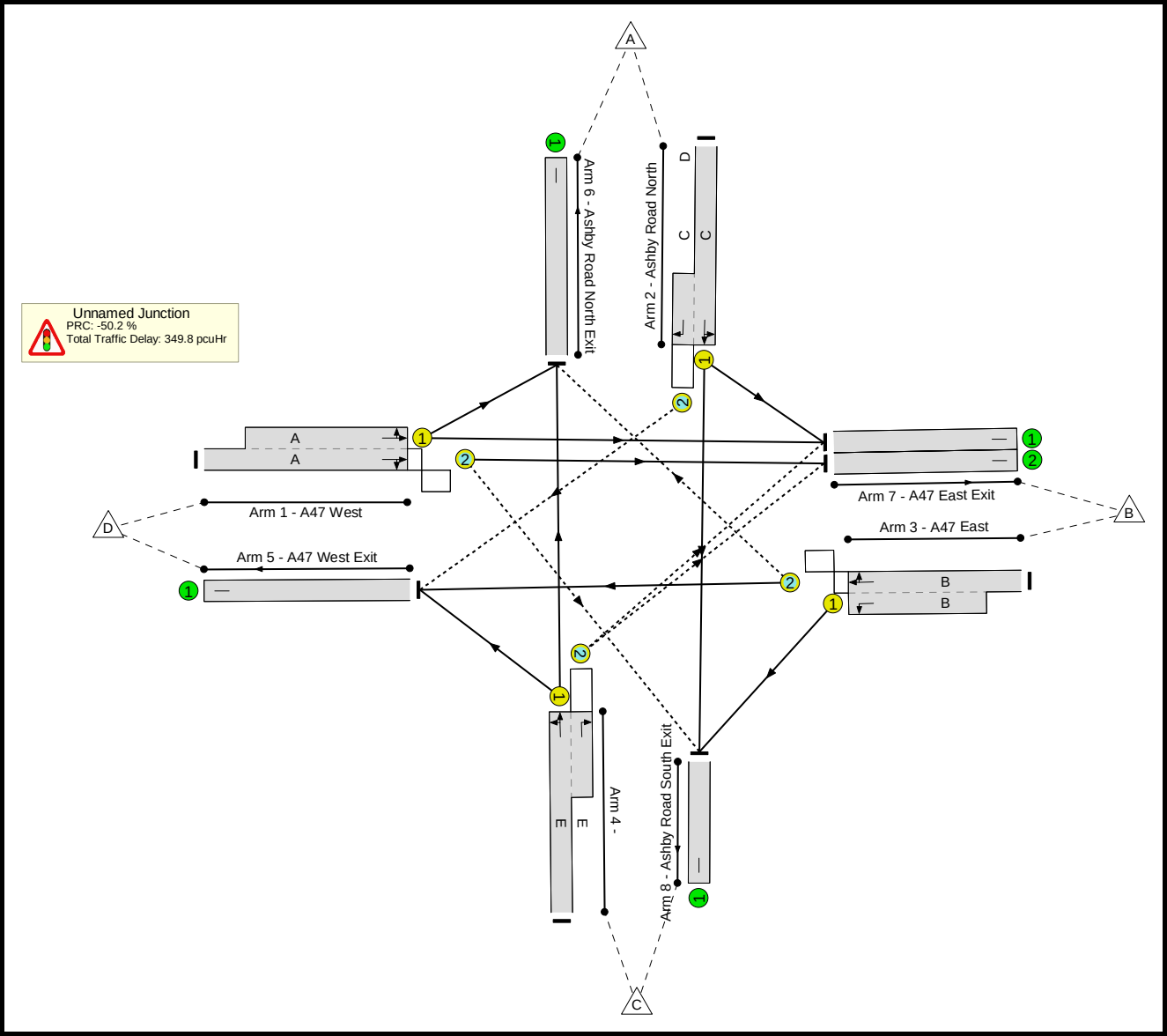
Stage	1	2	3
Duration	34	28	10
Change Point	0	41	76

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	135.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	135.2%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	34	-	1141	2057:1841	145+704	135.2 : 134.3%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	42	10	891	1866:1753	334+336	133.1 : 133.1%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	34	-	942	2045:1741	770+133	104.3 : 104.3%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	28	-	631	1849:1912	513+149	95.4 : 95.4%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1374	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	744	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	682	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	663	Inf	Inf	0.0%

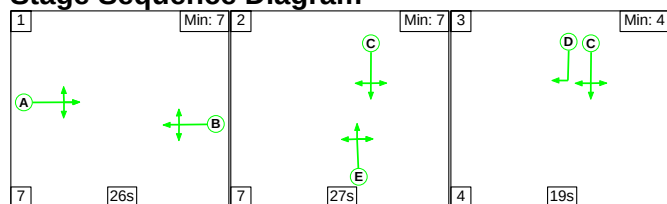
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	164	234	209	51.0	295.9	2.9	349.8	-	-	-	-
Unnamed Junction	-	-	164	234	209	51.0	295.9	2.9	349.8	-	-	-	-
1/2+1/1	1141	844	0	0	80	20.7	148.2	1.2	170.1	536.8	37.1	148.2	185.3
2/1+2/2	891	669	22	234	80	16.7	112.8	1.1	130.6	527.6	26.9	112.8	139.7
3/2+3/1	942	903	0	0	49	8.6	27.8	0.2	36.7	140.1	23.5	27.8	51.3
4/1+4/2	631	631	142	0	0	5.0	7.1	0.3	12.4	70.7	13.5	7.1	20.6
5/1	1232	1232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	645	645	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -50.2 Total Delay for Signalled Lanes (pcuHr): 349.76 Cycle Time (s): 90 PRC Over All Lanes (%): -50.2 Total Delay Over All Lanes(pcuHr): 349.76													

Full Input Data And Results

Scenario 12: '2032 + Committed PM' (FG12: '2032 + Committed PM', Plan 1: 'Network Control Plan 1')

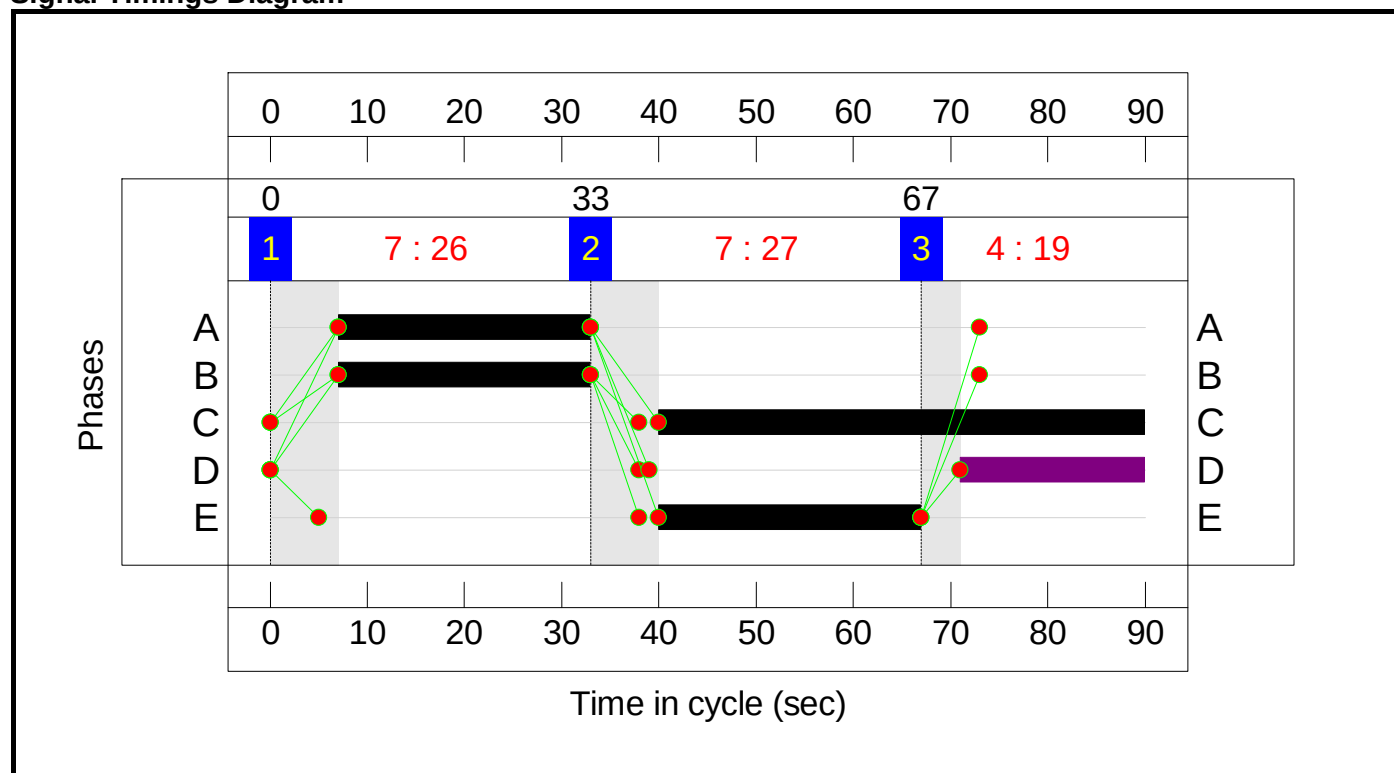
Stage Sequence Diagram



Stage Timings

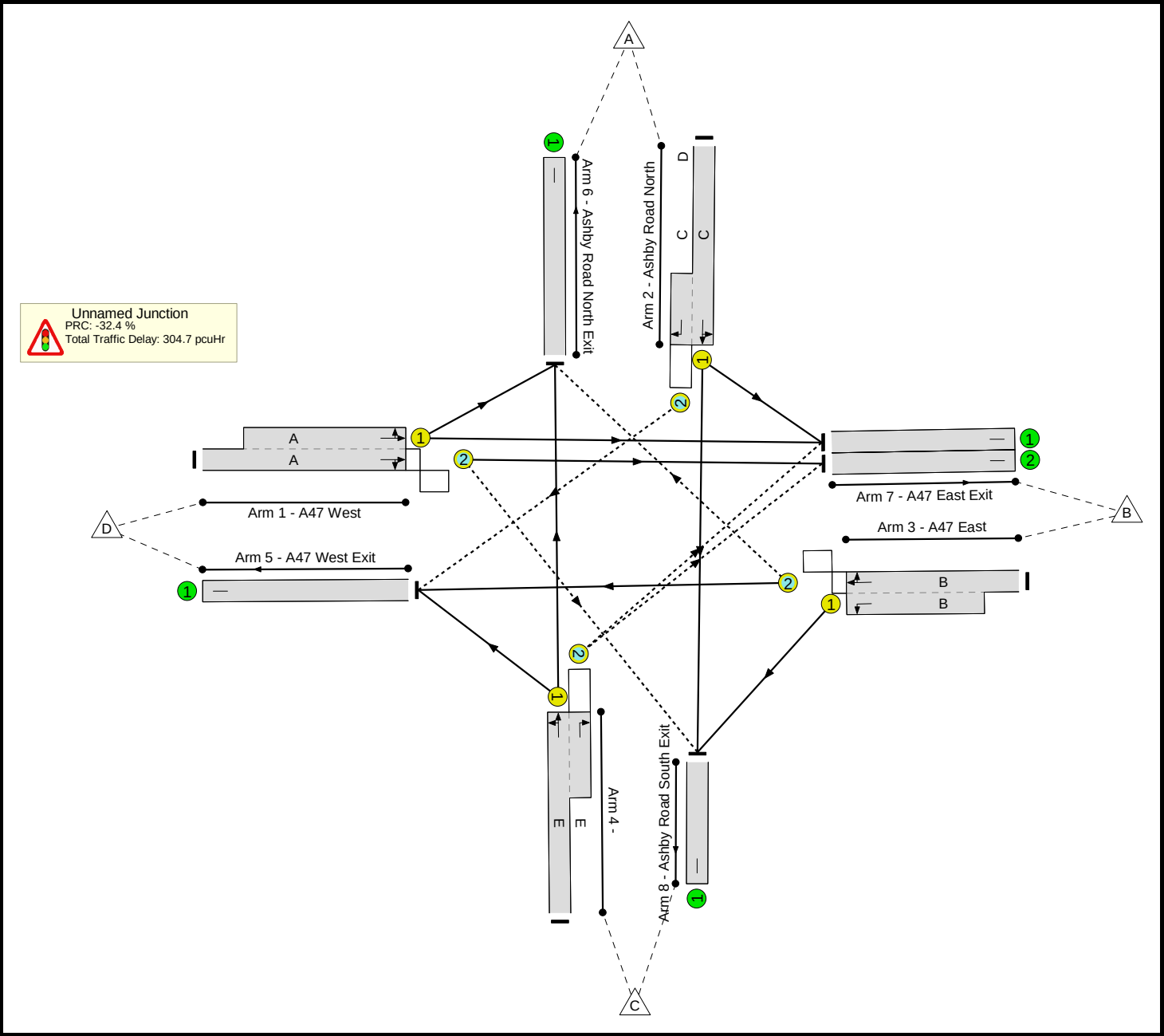
Stage	1	2	3
Duration	26	27	19
Change Point	0	33	67

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	119.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	119.1%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	26	-	1085	2132:1790	397+537	116.2 : 116.2%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	50	19	881	1861:1753	336+409	118.3 : 118.3%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	26	-	783	2044:1741	613+93	110.9 : 111.1%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	27	-	752	1853:1912	505+126	119.1 : 119.1%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1315	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%

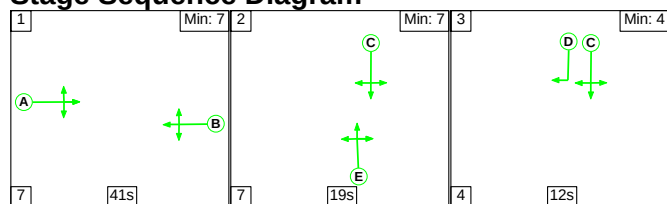
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 13: '2032 + Committed + Dev AM' (FG13: '2032 + Committed + Development AM', Plan 1: 'Network Control Plan 1')

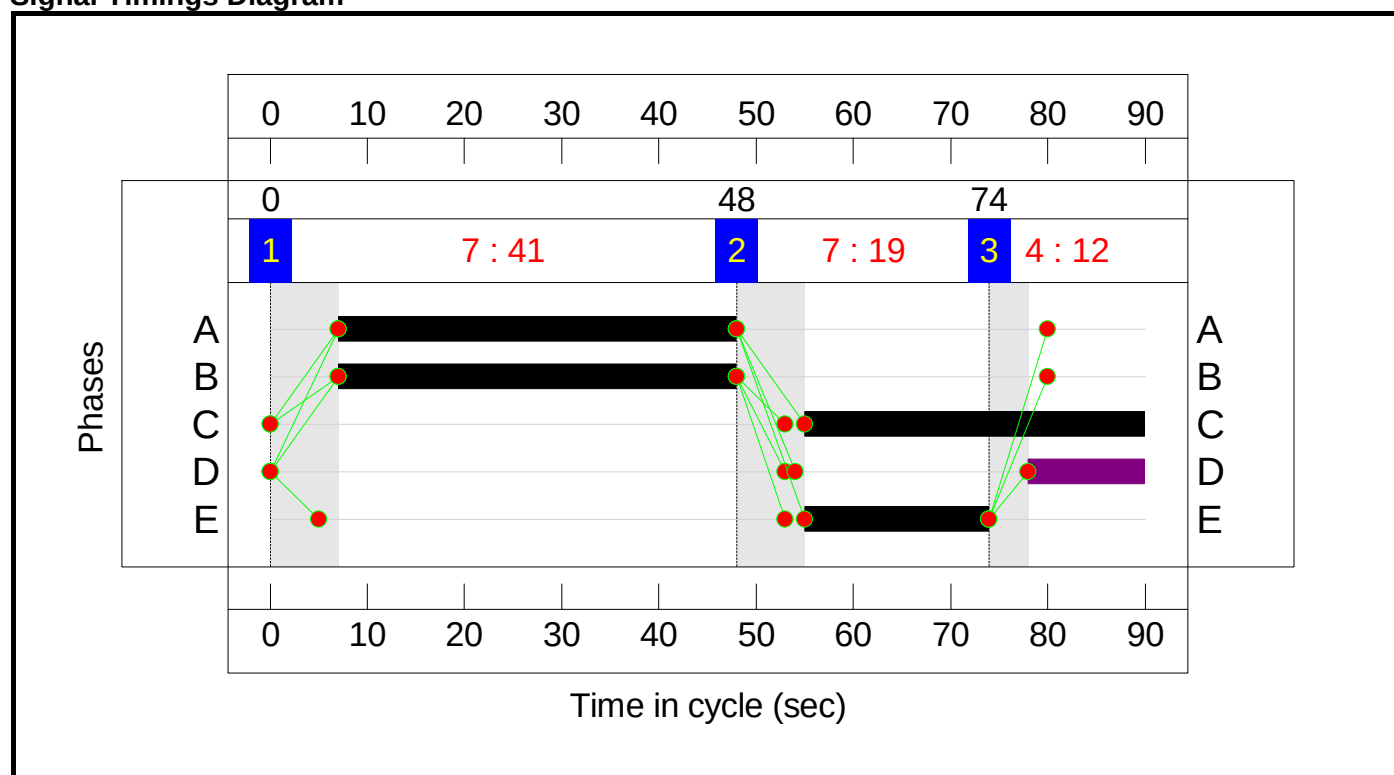
Stage Sequence Diagram



Stage Timings

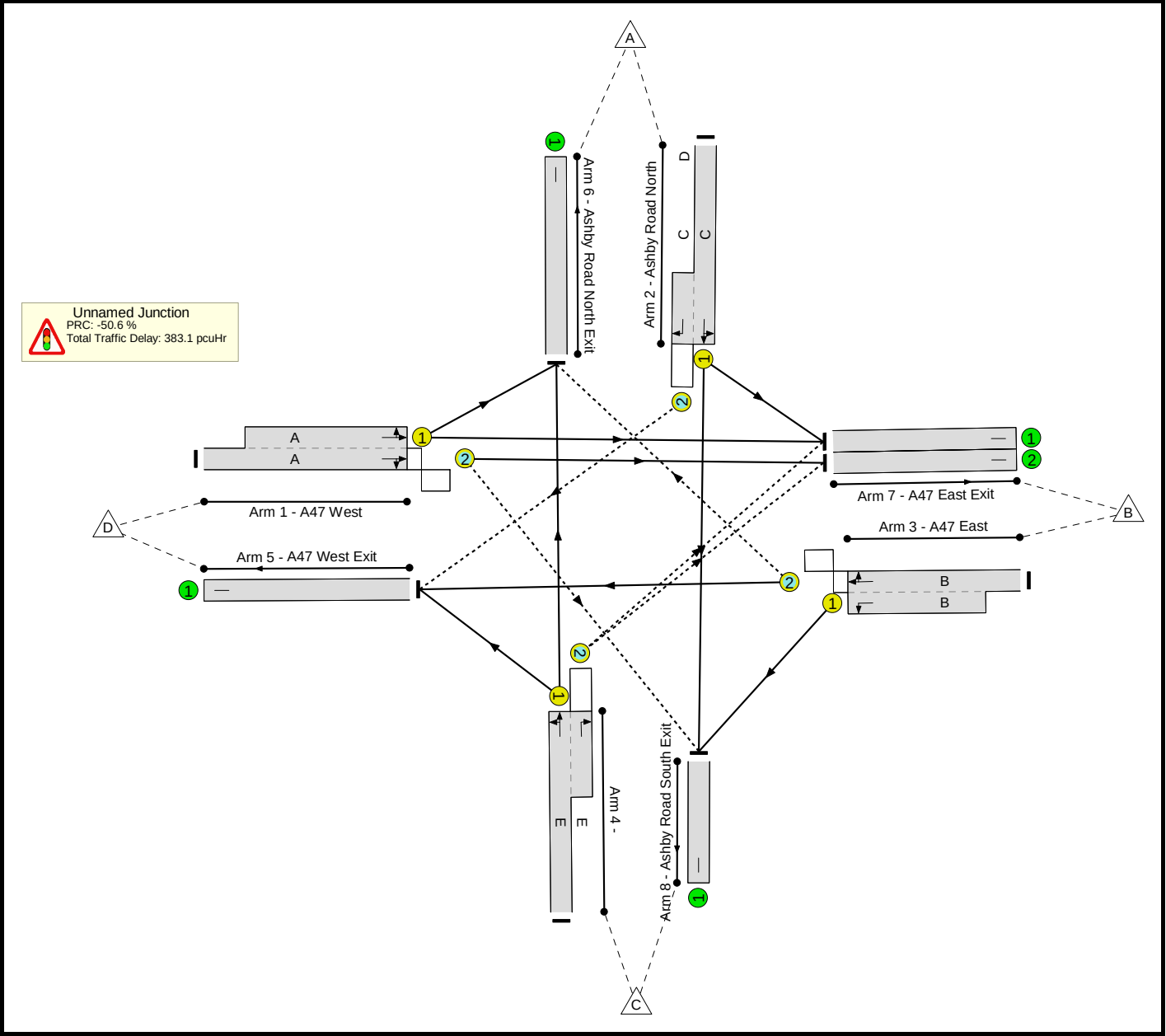
Stage	1	2	3
Duration	41	19	12
Change Point	0	48	74

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	135.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	135.5%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	41	-	1206	2062:1842	188+779	125.2 : 124.5%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	35	12	892	1866:1753	328+331	135.5 : 135.5%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	41	-	956	2045:1741	903+154	90.5 : 90.5%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	19	-	637	1847:1912	369+106	134.3 : 134.3%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1395	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	748	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	165	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	680	Inf	Inf	0.0%

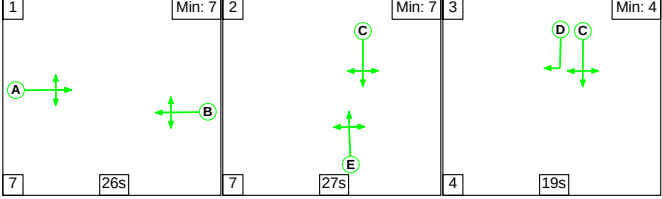
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	179	273	145	52.6	328.2	2.4	383.1	-	-	-	-
Unnamed Junction	-	-	179	273	145	52.6	328.2	2.4	383.1	-	-	-	-
1/2+1/1	1206	962	30	0	80	17.0	121.7	1.2	139.9	417.5	37.1	121.7	158.8
2/1+2/2	892	658	0	273	57	18.4	118.8	0.6	137.8	556.3	27.8	118.8	146.6
3/2+3/1	956	956	43	0	8	5.4	4.4	0.3	10.0	37.8	19.0	4.4	23.4
4/1+4/2	637	474	106	0	0	11.8	83.3	0.3	95.4	539.1	20.0	83.3	103.3
5/1	1231	1231	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	558	558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	125	125	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -50.6 Total Delay for Signalled Lanes (pcuHr): 383.13 Cycle Time (s): 90 PRC Over All Lanes (%): -50.6 Total Delay Over All Lanes(pcuHr): 383.13													

Full Input Data And Results

Scenario 14: '2032 + Committed + Dev PM' (FG14: '2032 + Committed + Development PM', Plan 1: 'Network Control Plan 1')

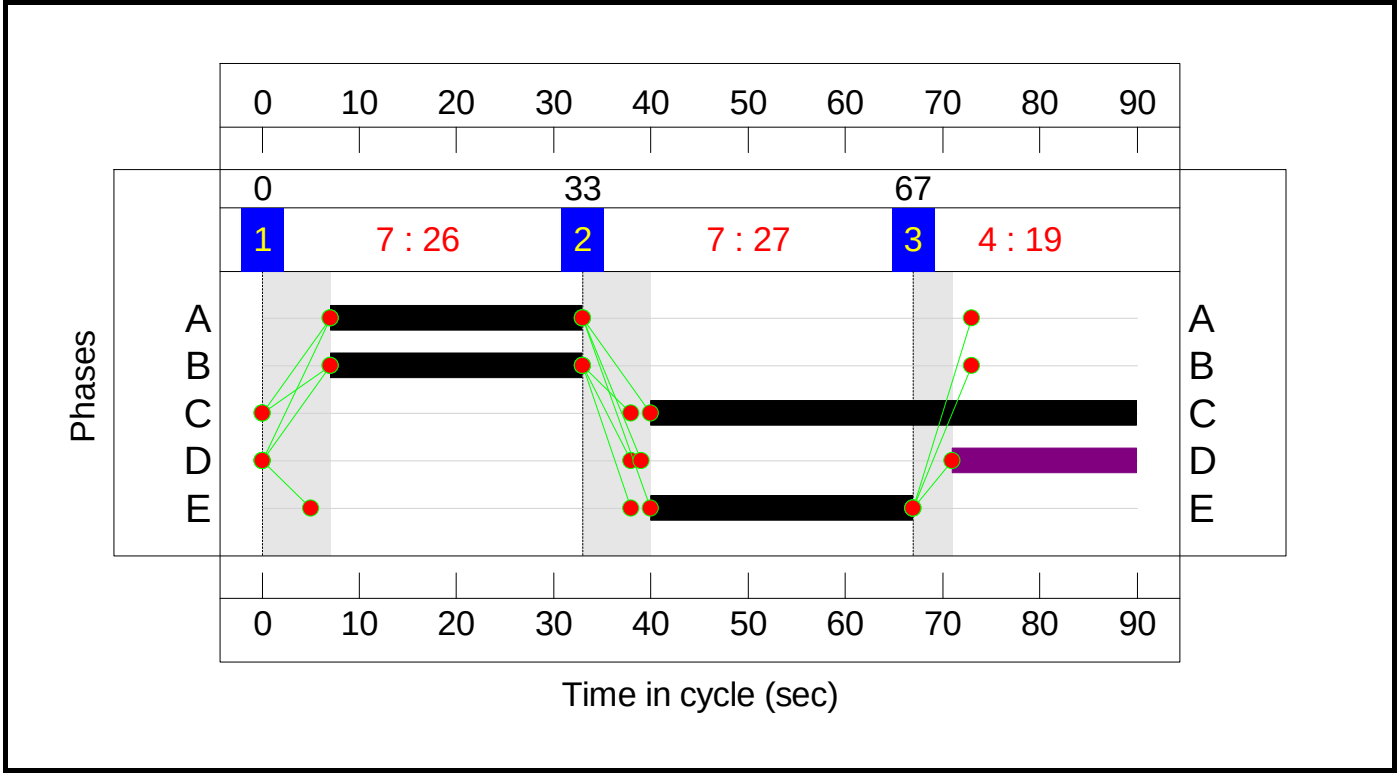
Stage Sequence Diagram



Stage Timings

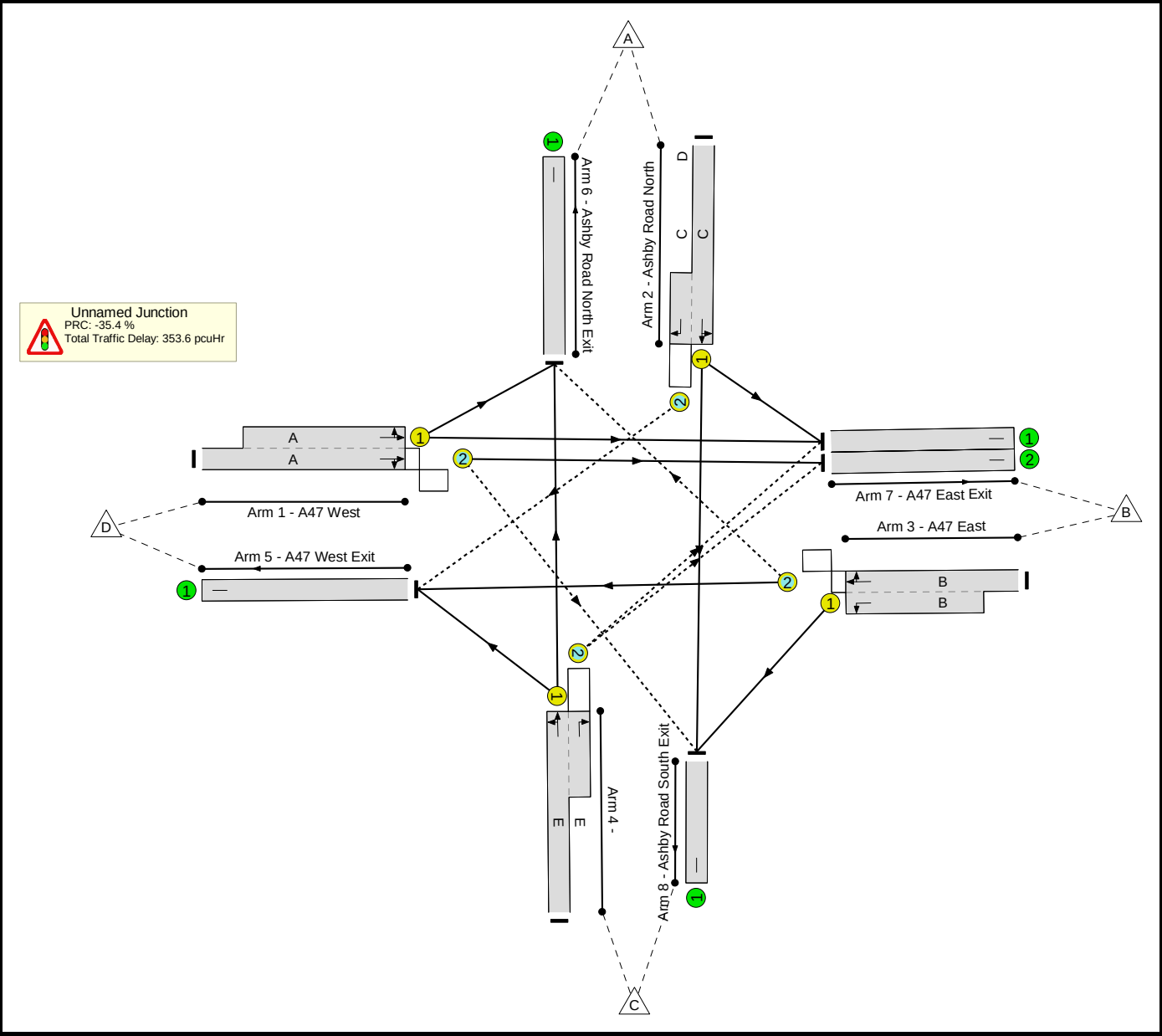
Stage	1	2	3
Duration	26	27	19
Change Point	0	33	67

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	121.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	121.9%
1/2+1/1	A47 West Left Ahead Right	O+U	N/A	N/A	A		1	26	-	1107	2131:1793	397+538	118.4 : 118.4%
2/1+2/2	Ashby Road North Right Left Ahead	U+O	N/A	N/A	C	D	1	50	19	884	1861:1753	333+409	119.1 : 119.1%
3/2+3/1	A47 East Ahead Right Left	O+U	N/A	N/A	B		1	26	-	823	2044:1741	608+88	118.4 : 117.4%
4/1+4/2	Left Ahead Right	U+O	N/A	N/A	E		1	27	-	767	1850:1912	506+123	121.9 : 121.9%
5/1	A47 West Exit	U	N/A	N/A	-		-	-	-	1373	Inf	Inf	0.0%
6/1	Ashby Road North Exit	U	N/A	N/A	-		-	-	-	886	Inf	Inf	0.0%
7/1	A47 East Exit	U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
7/2	A47 East Exit	U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%
8/1	Ashby Road South Exit	U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix K

A47/Wykin Road Roundabout – ARCADY Outputs

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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Filename: T19595 - A47-Wykin Road.j10

Path: C:\Users\JamesCorbett\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\2019\T19595 North Hinckley\Junction Assessments\Arcady

Report generation date: 24/03/2022 13:41:04

»2022, AM
 »2022, PM
 »2027 + Committed, AM
 »2027 + Committed, PM
 »2027 + Committed + Development, AM
 »2027 + Committed + Development, PM
 »2032 + Committed , AM
 »2032 + Committed , PM
 »2032 + Committed + Development, AM
 »2032 + Committed + Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Arm 1	D1	0.3	4.89	0.25	A	D2	0.1	3.73	0.10	A
Arm 2		0.8	3.60	0.43	A		1.1	3.95	0.52	A
Arm 3		0.3	4.21	0.21	A		0.3	4.69	0.21	A
Arm 4		1.1	4.20	0.50	A		0.8	3.45	0.42	A
	2027 + Committed									
Arm 1	D3	0.4	5.99	0.29	A	D4	0.2	4.76	0.17	A
Arm 2		1.3	4.45	0.54	A		1.9	5.58	0.66	A
Arm 3		0.3	5.03	0.25	A		0.4	5.91	0.27	A
Arm 4		2.0	6.16	0.66	A		1.4	4.83	0.59	A
	2027 + Committed + Development									
Arm 1	D5	0.4	6.50	0.30	A	D6	0.2	4.86	0.18	A
Arm 2		1.3	4.63	0.56	A		2.2	6.13	0.69	A
Arm 3		0.4	5.17	0.28	A		0.4	6.44	0.30	A
Arm 4		2.5	7.08	0.70	A		1.5	5.02	0.60	A
	2032 + Committed									
Arm 1	D7	0.4	6.27	0.30	A	D8	0.2	4.89	0.18	A
Arm 2		1.4	4.62	0.56	A		2.1	5.91	0.67	A
Arm 3		0.4	5.22	0.27	A		0.4	6.18	0.28	A
Arm 4		2.2	6.54	0.67	A		1.5	5.04	0.60	A
	2032 + Committed + Development									
Arm 1	D9	0.5	6.82	0.32	A	D10	0.2	5.00	0.19	A
Arm 2		1.4	4.82	0.57	A		2.4	6.54	0.70	A
Arm 3		0.4	5.36	0.28	A		0.5	6.77	0.32	A
Arm 4		2.7	7.56	0.72	A		1.6	5.25	0.62	A

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.

File summary

File Description

Title	
Location	
Site number	
Date	08/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesWalker
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	2022	AM	ONE HOUR	07:45	09:15	15
D2	2022	PM	ONE HOUR	16:45	18:15	15
D3	2027 + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2027 + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2027 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D6	2027 + Committed + Development	PM	ONE HOUR	16:45	18:15	15
D7	2032 + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2032 + Committed	PM	ONE HOUR	16:45	18:15	15
D9	2032 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D10	2032 + Committed + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Wykin Road East		
2	A47 South		
3	Wykin Road West		
4	A47 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	3.30	6.00	15.0	22.0	50.0	29.0		
2	4.50	8.00	23.0	23.0	50.0	37.0		
3	2.50	6.50	25.0	20.0	50.0	20.0		
4	4.50	7.50	32.0	22.0	50.0	42.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.579	1531
2	0.668	2040
3	0.602	1613
4	0.652	1966

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	2022	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		✓	223	100.000
2		✓	749	100.000
3		✓	206	100.000
4		✓	846	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	108	31	84
	2	61	0	54	634
	3	71	61	0	74
	4	55	723	68	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	2	0	0
	2	2	0	6	9
	3	1	1	0	3
	4	0	8	2	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	168	168
	2	564	564
	3	155	155
	4	637	637
08:00-08:15	1	200	200
	2	673	673
	3	185	185
	4	761	761
08:15-08:30	1	246	246
	2	825	825
	3	227	227
	4	931	931
08:30-08:45	1	246	246
	2	825	825
	3	227	227
	4	931	931
08:45-09:00	1	200	200
	2	673	673
	3	185	185
	4	761	761
09:00-09:15	1	168	168
	2	564	564
	3	155	155
	4	637	637

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	4.89	0.3	A
2	0.43	3.60	0.8	A
3	0.21	4.21	0.3	A
4	0.50	4.20	1.1	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	168	639	1161	0.145	167	0.2	3.655	A
2	564	137	1948	0.289	562	0.4	2.806	A
3	155	585	1261	0.123	155	0.1	3.306	A
4	637	145	1892	0.337	635	0.5	3.058	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	200	765	1088	0.184	200	0.2	4.092	A
2	673	164	1930	0.349	673	0.6	3.096	A
3	185	700	1192	0.155	185	0.2	3.636	A
4	761	173	1873	0.406	760	0.7	3.457	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	246	937	989	0.248	245	0.3	4.885	A
2	825	201	1905	0.433	824	0.8	3.597	A
3	227	857	1097	0.207	227	0.3	4.203	A
4	931	212	1848	0.504	930	1.1	4.190	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	246	938	988	0.248	246	0.3	4.894	A
2	825	201	1905	0.433	825	0.8	3.603	A
3	227	858	1097	0.207	227	0.3	4.208	A
4	931	212	1847	0.504	931	1.1	4.202	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	200	767	1087	0.184	201	0.2	4.105	A
2	673	165	1929	0.349	674	0.6	3.104	A
3	185	701	1191	0.156	185	0.2	3.644	A
4	761	174	1873	0.406	762	0.7	3.469	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	168	642	1159	0.145	168	0.2	3.666	A
2	564	138	1947	0.290	564	0.4	2.818	A
3	155	587	1260	0.123	155	0.1	3.314	A
4	637	145	1891	0.337	638	0.5	3.074	A

2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	3.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.83	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	2022	PM	ONE HOUR	18:45	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		✓	104	100.000
2		✓	933	100.000
3		✓	190	100.000
4		✓	713	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	58	0	48
	2	91	0	58	784
	3	59	41	0	90
	4	91	588	54	2

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	4	0	2
	2	1	0	2	3
	3	4	0	0	4
	4	0	2	7	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	78	78
	2	702	702
	3	143	143
	4	537	537
17:00-17:15	1	93	93
	2	839	839
	3	171	171
	4	641	641
17:15-17:30	1	115	115
	2	1027	1027
	3	209	209
	4	785	785
17:30-17:45	1	115	115
	2	1027	1027
	3	209	209
	4	785	785
17:45-18:00	1	93	93
	2	839	839
	3	171	171
	4	641	641
18:00-18:15	1	78	78
	2	702	702
	3	143	143
	4	537	537

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.10	3.73	0.1	A
2	0.52	3.95	1.1	A
3	0.21	4.69	0.3	A
4	0.42	3.45	0.8	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	78	498	1243	0.063	78	0.1	3.185	A
2	702	78	1987	0.353	700	0.6	2.888	A
3	143	894	1195	0.120	142	0.1	3.524	A
4	537	143	1893	0.284	535	0.4	2.703	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	93	598	1188	0.079	93	0.1	3.394	A
2	839	93	1977	0.424	838	0.8	3.245	A
3	171	831	1113	0.153	171	0.2	3.937	A
4	641	172	1874	0.342	640	0.5	2.977	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	115	729	1109	0.103	114	0.1	3.730	A
2	1027	114	1983	0.523	1026	1.1	3.939	A
3	209	1017	1001	0.209	209	0.3	4.684	A
4	785	210	1849	0.425	784	0.7	3.447	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	115	730	1109	0.103	115	0.1	3.731	A
2	1027	115	1983	0.523	1027	1.1	3.952	A
3	209	1018	1000	0.209	209	0.3	4.693	A
4	785	210	1849	0.425	785	0.8	3.453	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	93	597	1188	0.079	94	0.1	3.397	A
2	839	94	1977	0.424	840	0.8	3.259	A
3	171	833	1112	0.154	171	0.2	3.949	A
4	641	172	1874	0.342	642	0.5	2.984	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	78	500	1242	0.063	78	0.1	3.191	A
2	702	78	1987	0.353	703	0.6	2.883	A
3	143	897	1193	0.120	143	0.1	3.536	A
4	537	144	1892	0.284	537	0.4	2.713	A

2027 + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.39	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	2027 + Committed	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		✓	220	100.000
2		✓	935	100.000
3		✓	223	100.000
4		✓	1079	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	108	30	82
	2	97	0	52	788
	3	83	61	0	79
	4	69	937	73	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	0
	2	2	0	6	9
	3	1	1	0	3
	4	0	8	2	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	168	168
	2	704	704
	3	168	168
	4	812	812
08:00-08:15	1	198	198
	2	841	841
	3	200	200
	4	970	970
08:15-08:30	1	242	242
	2	1029	1029
	3	246	246
	4	1188	1188
08:30-08:45	1	242	242
	2	1029	1029
	3	246	246
	4	1188	1188
08:45-09:00	1	198	198
	2	841	841
	3	200	200
	4	970	970
09:00-09:15	1	168	168
	2	704	704
	3	168	168
	4	812	812

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.29	5.99	0.4	A
2	0.54	4.45	1.3	A
3	0.25	5.03	0.3	A
4	0.66	6.16	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	166	803	1066	0.155	165	0.2	4.029	A
2	704	139	1947	0.362	701	0.6	3.119	A
3	168	724	1177	0.143	167	0.2	3.623	A
4	812	181	1888	0.435	809	0.8	3.628	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	198	961	975	0.203	197	0.3	4.677	A
2	841	166	1929	0.436	840	0.8	3.568	A
3	200	867	1091	0.184	200	0.2	4.107	A
4	970	216	1845	0.526	969	1.2	4.389	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	242	1176	850	0.285	242	0.4	5.967	A
2	1029	203	1904	0.541	1028	1.3	4.431	A
3	246	1061	975	0.252	245	0.3	5.015	A
4	1188	265	1813	0.655	1185	2.0	6.098	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	242	1179	849	0.285	242	0.4	5.994	A
2	1029	204	1904	0.541	1029	1.3	4.450	A
3	246	1062	974	0.252	246	0.3	5.028	A
4	1188	265	1813	0.655	1188	2.0	6.161	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	198	966	972	0.204	198	0.3	4.703	A
2	841	167	1928	0.436	842	0.8	3.587	A
3	200	869	1090	0.184	201	0.2	4.122	A
4	970	217	1844	0.526	973	1.2	4.438	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	166	808	1063	0.156	166	0.2	4.050	A
2	704	140	1946	0.362	705	0.6	3.134	A
3	168	727	1175	0.143	168	0.2	3.638	A
4	812	182	1888	0.435	814	0.8	3.663	A

2027 + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.27	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	2027 + Committed	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		✓	148	100.000
2		✓	1146	100.000
3		✓	210	100.000
4		✓	976	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0	58	41	49
	2	98	0	59	989
	3	68	46	0	98
	4	88	821	65	2

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	4	0	2
	2	1	0	2	3
	3	4	0	0	4
	4	0	2	7	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	111	111
	2	863	863
	3	158	158
	4	735	735
17:00-17:15	1	133	133
	2	1030	1030
	3	189	189
	4	877	877
17:15-17:30	1	163	163
	2	1262	1262
	3	231	231
	4	1075	1075
17:30-17:45	1	163	163
	2	1262	1262
	3	231	231
	4	1075	1075
17:45-18:00	1	133	133
	2	1030	1030
	3	189	189
	4	877	877
18:00-18:15	1	111	111
	2	863	863
	3	158	158
	4	735	735

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.17	4.76	0.2	A
2	0.66	5.58	1.9	A
3	0.27	5.91	0.4	A
4	0.59	4.83	1.4	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	111	701	1125	0.099	111	0.1	3.624	A
2	883	118	1981	0.440	880	0.8	3.350	A
3	158	854	1099	0.144	157	0.2	3.938	A
4	735	157	1883	0.390	732	0.6	3.187	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	133	839	1046	0.127	133	0.1	4.031	A
2	1030	141	1945	0.530	1029	1.1	4.031	A
3	189	1022	998	0.189	189	0.2	4.583	A
4	877	189	1883	0.471	878	0.9	3.723	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	163	1028	937	0.174	163	0.2	4.751	A
2	1262	173	1924	0.656	1259	1.9	5.533	A
3	231	1250	881	0.269	231	0.4	5.886	A
4	1075	231	1836	0.585	1073	1.4	4.804	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	163	1028	936	0.174	163	0.2	4.760	A
2	1262	173	1924	0.656	1262	1.9	5.583	A
3	231	1253	859	0.269	231	0.4	5.912	A
4	1075	231	1835	0.586	1075	1.4	4.833	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	133	842	1044	0.127	133	0.2	4.043	A
2	1030	141	1945	0.530	1033	1.2	4.072	A
3	189	1026	995	0.190	189	0.2	4.608	A
4	877	189	1883	0.471	879	0.9	3.746	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	111	704	1123	0.099	112	0.1	3.638	A
2	883	118	1960	0.440	884	0.8	3.381	A
3	158	856	1097	0.144	158	0.2	3.957	A
4	735	156	1883	0.390	736	0.7	3.210	A

2027 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.94	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)
D5	2027 + Committed + Development	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		✓	220	100.000
2		✓	953	100.000
3		✓	230	100.000
4		✓	1153	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0	108	30	82
	2	97	0	52	804
	3	83	61	0	86
	4	69	992	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	2	0	0
	2	2	0	6	9
	3	1	1	0	3
	4	0	8	2	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	166	166
	2	717	717
	3	173	173
	4	868	868
08:00-08:15	1	198	198
	2	857	857
	3	207	207
	4	1037	1037
08:15-08:30	1	242	242
	2	1049	1049
	3	253	253
	4	1269	1269
08:30-08:45	1	242	242
	2	1049	1049
	3	253	253
	4	1269	1269
08:45-09:00	1	198	198
	2	857	857
	3	207	207
	4	1037	1037
09:00-09:15	1	166	166
	2	717	717
	3	173	173
	4	868	868

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	6.50	0.4	A
2	0.56	4.63	1.3	A
3	0.28	5.17	0.4	A
4	0.70	7.08	2.5	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	166	858	1034	0.160	165	0.2	4.178	A
2	717	153	1937	0.370	715	0.6	3.176	A
3	173	737	1169	0.148	172	0.2	3.673	A
4	868	181	1888	0.465	864	0.9	3.823	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	198	1028	936	0.211	197	0.3	4.918	A
2	857	183	1917	0.447	856	0.9	3.662	A
3	207	883	1082	0.191	207	0.2	4.183	A
4	1037	216	1845	0.562	1035	1.4	4.743	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	242	1256	804	0.301	242	0.4	6.460	A
2	1049	224	1890	0.555	1047	1.3	4.607	A
3	253	1080	963	0.263	253	0.4	5.155	A
4	1269	265	1813	0.700	1265	2.4	6.970	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	242	1261	801	0.302	242	0.4	6.499	A
2	1049	225	1890	0.555	1049	1.3	4.629	A
3	253	1082	962	0.263	253	0.4	5.169	A
4	1269	265	1813	0.700	1269	2.5	7.079	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	198	1034	933	0.212	198	0.3	4.953	A
2	857	184	1917	0.447	859	0.9	3.685	A
3	207	886	1080	0.191	207	0.2	4.200	A
4	1037	217	1844	0.562	1041	1.4	4.819	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	166	864	1031	0.161	166	0.2	4.204	A
2	717	154	1937	0.370	718	0.6	3.197	A
3	173	741	1167	0.148	173	0.2	3.686	A
4	868	182	1888	0.465	870	0.9	3.867	A

2027 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.65	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	2027 + Committed + Development	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		✓	148	100.000
2		✓	1195	100.000
3		✓	227	100.000
4		✓	1002	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0	58	41	49
	2	98	0	59	1038
	3	66	46	0	115
	4	88	840	72	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	4
From	1	0	4	0
	2	1	0	2
	3	4	0	0
	4	0	2	7

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	111	111
	2	900	900
	3	171	171
	4	754	754
17:00-17:15	1	133	133
	2	1074	1074
	3	204	204
	4	901	901
17:15-17:30	1	183	183
	2	1316	1316
	3	250	250
	4	1103	1103
17:30-17:45	1	183	183
	2	1316	1316
	3	250	250
	4	1103	1103
17:45-18:00	1	133	133
	2	1074	1074
	3	204	204
	4	901	901
18:00-18:15	1	111	111
	2	900	900
	3	171	171
	4	754	754

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.18	4.88	0.2	A
2	0.69	6.13	2.2	A
3	0.30	6.44	0.4	A
4	0.60	5.02	1.5	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	111	720	1114	0.100	111	0.1	3.665	A
2	900	123	1957	0.460	896	0.9	3.475	A
3	171	890	1077	0.159	170	0.2	4.090	A
4	754	157	1883	0.401	752	0.7	3.241	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	133	862	1032	0.129	133	0.2	4.092	A
2	1074	147	1941	0.553	1073	1.3	4.252	A
3	204	1066	972	0.210	204	0.3	4.834	A
4	901	189	1883	0.483	900	0.9	3.814	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	163	1055	921	0.177	163	0.2	4.854	A
2	1316	180	1919	0.686	1312	2.2	6.056	A
3	250	1303	829	0.302	249	0.4	6.406	A
4	1103	231	1836	0.601	1101	1.5	4.991	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	163	1057	919	0.177	163	0.2	4.864	A
2	1316	181	1919	0.686	1316	2.2	6.130	A
3	250	1307	826	0.302	250	0.4	6.441	A
4	1103	231	1835	0.601	1103	1.5	5.023	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	133	865	1030	0.129	133	0.2	4.103	A
2	1074	148	1941	0.554	1078	1.3	4.306	A
3	204	1071	969	0.211	205	0.3	4.866	A
4	901	189	1883	0.484	903	1.0	3.843	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	111	724	1112	0.100	112	0.1	3.680	A
2	900	124	1957	0.460	901	0.9	3.509	A
3	171	895	1074	0.159	171	0.2	4.115	A
4	754	156	1883	0.401	755	0.7	3.264	A

2032 + Committed , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.68	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	2032 + Committed	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		✓	227	100.000
2		✓	961	100.000
3		✓	231	100.000
4		✓	1107	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0	112	30	85
	2	99	0	54	808
	3	88	63	0	82
	4	70	962	75	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	0
	2	2	0	6	9
	3	1	1	0	3
	4	0	8	2	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	171	171
	2	723	723
	3	174	174
	4	833	833
08:00-08:15	1	204	204
	2	884	884
	3	208	208
	4	995	995
08:15-08:30	1	250	250
	2	1058	1058
	3	254	254
	4	1219	1219
08:30-08:45	1	250	250
	2	1058	1058
	3	254	254
	4	1219	1219
08:45-09:00	1	204	204
	2	884	884
	3	208	208
	4	995	995
09:00-09:15	1	171	171
	2	723	723
	3	174	174
	4	833	833

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	6.27	0.4	A
2	0.56	4.62	1.4	A
3	0.27	5.22	0.4	A
4	0.67	6.54	2.2	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	171	825	1054	0.162	170	0.2	4.111	A
2	723	142	1944	0.372	721	0.6	3.173	A
3	174	744	1165	0.149	173	0.2	3.689	A
4	833	186	1865	0.447	830	0.9	3.711	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	204	987	960	0.213	204	0.3	4.807	A
2	884	171	1926	0.449	883	0.9	3.657	A
3	208	891	1077	0.193	207	0.2	4.210	A
4	995	223	1841	0.541	994	1.2	4.540	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	250	1208	832	0.300	249	0.4	6.231	A
2	1058	209	1900	0.557	1058	1.3	4.589	A
3	254	1090	957	0.266	254	0.4	5.205	A
4	1219	273	1808	0.674	1215	2.2	6.466	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	250	1211	830	0.301	250	0.4	6.265	A
2	1058	209	1900	0.557	1058	1.4	4.621	A
3	254	1092	956	0.266	254	0.4	5.220	A
4	1219	273	1808	0.674	1219	2.2	6.536	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	204	992	957	0.213	205	0.3	4.838	A
2	884	171	1925	0.449	886	0.9	3.677	A
3	208	894	1075	0.193	208	0.2	4.225	A
4	995	223	1840	0.541	999	1.3	4.600	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	171	830	1051	0.163	171	0.2	4.134	A
2	723	143	1944	0.372	724	0.6	3.194	A
3	174	748	1163	0.150	174	0.2	3.702	A
4	833	187	1864	0.447	835	0.9	3.752	A

2032 + Committed , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.53	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)
D8	2032 + Committed	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		✓	154	100.000
2		✓	1175	100.000
3		✓	217	100.000
4		✓	1000	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	60	43	51
	2	101	0	60	1014
	3	68	48	0	101
	4	91	840	67	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	4
From	1	0	4	0
	2	1	0	2
	3	4	0	0
	4	0	2	7

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	116	116
	2	885	885
	3	163	163
	4	753	753
17:00-17:15	1	138	138
	2	1056	1056
	3	195	195
	4	899	899
17:15-17:30	1	170	170
	2	1294	1294
	3	239	239
	4	1101	1101
17:30-17:45	1	170	170
	2	1294	1294
	3	239	239
	4	1101	1101
17:45-18:00	1	138	138
	2	1056	1056
	3	195	195
	4	899	899
18:00-18:15	1	116	116
	2	885	885
	3	163	163
	4	753	753

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.18	4.89	0.2	A
2	0.67	5.91	2.1	A
3	0.28	6.18	0.4	A
4	0.60	5.04	1.5	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	116	718	1116	0.104	115	0.1	3.676	A
2	885	122	1958	0.452	881	0.8	3.427	A
3	163	876	1086	0.150	163	0.2	4.014	A
4	753	163	1880	0.400	750	0.7	3.246	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	138	859	1034	0.134	138	0.2	4.109	A
2	1056	146	1942	0.544	1055	1.2	4.164	A
3	195	1049	982	0.199	195	0.3	4.714	A
4	899	195	1859	0.484	898	0.9	3.822	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	170	1051	922	0.184	169	0.2	4.885	A
2	1294	179	1920	0.674	1290	2.1	5.843	A
3	239	1283	841	0.284	238	0.4	6.151	A
4	1101	238	1831	0.601	1099	1.5	5.007	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	170	1054	921	0.184	170	0.2	4.894	A
2	1294	179	1920	0.674	1294	2.1	5.907	A
3	239	1286	839	0.285	239	0.4	6.183	A
4	1101	239	1830	0.602	1101	1.5	5.041	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	138	863	1032	0.134	139	0.2	4.122	A
2	1056	147	1941	0.544	1060	1.2	4.212	A
3	195	1053	979	0.199	196	0.3	4.742	A
4	899	196	1858	0.484	901	1.0	3.851	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	116	722	1113	0.104	116	0.1	3.691	A
2	885	123	1957	0.452	886	0.9	3.457	A
3	163	881	1083	0.151	164	0.2	4.038	A
4	753	164	1879	0.401	754	0.7	3.272	A

2032 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	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)
D9	2032 + Committed + Development	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		✓	228	100.000
2		✓	979	100.000
3		✓	237	100.000
4		✓	1180	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	112	31	85
	2	99	0	54	826
	3	86	63	0	88
	4	70	1016	94	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	0
	2	2	0	6	9
	3	1	1	0	3
	4	0	8	2	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	172	172
	2	737	737
	3	178	178
	4	888	888
08:00-08:15	1	205	205
	2	880	880
	3	213	213
	4	1061	1061
08:15-08:30	1	251	251
	2	1078	1078
	3	261	261
	4	1299	1299
08:30-08:45	1	251	251
	2	1078	1078
	3	261	261
	4	1299	1299
08:45-09:00	1	205	205
	2	880	880
	3	213	213
	4	1061	1061
09:00-09:15	1	172	172
	2	737	737
	3	178	178
	4	888	888

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.32	6.82	0.5	A
2	0.57	4.82	1.4	A
3	0.28	5.36	0.4	A
4	0.72	7.56	2.7	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	172	879	1022	0.168	171	0.2	4.267	A
2	737	157	1934	0.381	734	0.7	3.236	A
3	178	758	1157	0.154	178	0.2	3.738	A
4	888	186	1895	0.476	885	1.0	3.915	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	205	1053	922	0.222	205	0.3	5.067	A
2	880	188	1914	0.460	879	0.9	3.757	A
3	213	907	1067	0.200	213	0.3	4.285	A
4	1061	223	1841	0.576	1059	1.4	4.914	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	251	1287	786	0.319	250	0.5	6.775	A
2	1078	230	1886	0.572	1076	1.4	4.792	A
3	261	1110	945	0.276	260	0.4	5.350	A
4	1299	273	1808	0.718	1294	2.7	7.422	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	251	1291	784	0.320	251	0.5	6.825	A
2	1078	231	1885	0.572	1078	1.4	4.819	A
3	261	1112	944	0.277	261	0.4	5.363	A
4	1299	273	1808	0.719	1299	2.7	7.563	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	205	1059	918	0.223	206	0.3	5.108	A
2	880	190	1913	0.460	882	0.9	3.783	A
3	213	910	1065	0.200	214	0.3	4.302	A
4	1061	223	1840	0.576	1066	1.5	5.002	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	172	885	1019	0.168	172	0.2	4.295	A
2	737	158	1934	0.381	738	0.7	3.256	A
3	178	761	1155	0.155	179	0.2	3.752	A
4	888	187	1864	0.477	890	1.0	3.964	A

2032 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - 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	5.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.97	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)
D10	2032 + Committed + Development	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		✓	154	100.000
2		✓	1225	100.000
3		✓	234	100.000
4		✓	1028	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	60	43	51
	2	101	0	60	1064
	3	68	48	0	118
	4	91	859	74	2

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	4	0	2
	2	1	0	2	3
	3	4	0	0	4
	4	0	2	7	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	116	116
	2	922	922
	3	176	176
	4	772	772
17:00-17:15	1	138	138
	2	1101	1101
	3	210	210
	4	922	922
17:15-17:30	1	170	170
	2	1349	1349
	3	258	258
	4	1130	1130
17:30-17:45	1	170	170
	2	1349	1349
	3	258	258
	4	1130	1130
17:45-18:00	1	138	138
	2	1101	1101
	3	210	210
	4	922	922
18:00-18:15	1	116	116
	2	922	922
	3	176	176
	4	772	772

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.19	5.00	0.2	A
2	0.70	6.54	2.4	A
3	0.32	6.77	0.5	A
4	0.62	5.25	1.6	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	116	737	1104	0.105	115	0.1	3.718	A
2	922	127	1954	0.472	919	0.9	3.561	A
3	176	913	1063	0.166	175	0.2	4.179	A
4	772	163	1880	0.411	770	0.7	3.304	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	138	883	1020	0.136	138	0.2	4.172	A
2	1101	153	1938	0.568	1100	1.3	4.406	A
3	210	1093	955	0.220	210	0.3	4.982	A
4	922	195	1859	0.496	921	1.0	3.916	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	170	1080	906	0.187	169	0.2	4.991	A
2	1349	187	1915	0.704	1345	2.4	6.441	A
3	258	1337	808	0.319	257	0.5	6.724	A
4	1130	238	1831	0.617	1127	1.6	5.208	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	170	1082	905	0.187	170	0.2	5.004	A
2	1349	187	1915	0.704	1349	2.4	6.537	A
3	258	1341	806	0.320	258	0.5	6.772	A
4	1130	239	1830	0.617	1130	1.6	5.248	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	138	886	1018	0.136	139	0.2	4.184	A
2	1101	153	1937	0.568	1105	1.4	4.470	A
3	210	1099	951	0.221	211	0.3	5.022	A
4	922	196	1858	0.496	925	1.0	3.951	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	116	741	1102	0.105	116	0.1	3.734	A
2	922	128	1954	0.472	924	0.9	3.598	A
3	176	919	1060	0.166	177	0.2	4.206	A
4	772	164	1879	0.411	774	0.7	3.329	A

Appendix L

A47/Roston Drive/Triumph Factory – ARCADY Outputs

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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Filename: T19595 - Triumph Access.j10

Path: C:\Users\JamesCorbett\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\2019\T19595 North Hinckley\Junction Assessments\Arcady

Report generation date: 24/03/2022 16:41:13

»2022, AM
 »2022, PM
 »2027 + Committed, AM
 »2027 + Committed, PM
 »2027 + Committed + Development, AM
 »2027 + Committed + Development, PM
 »2032 + Committed , AM
 »2032 + Committed , PM
 »2032 + Committed + Development, AM
 »2032 + Committed + Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Arm 1	D1	0.6	5.45	0.38	A	D2	0.4	4.22	0.26	A
Arm 2		0.6	3.58	0.34	A		1.2	4.54	0.53	A
Arm 3		0.0	4.18	0.03	A		0.3	4.79	0.23	A
Arm 4		1.1	4.18	0.51	A		0.6	3.46	0.39	A
	2027 + Committed									
Arm 1	D3	0.4	5.43	0.28	A	D4	0.3	4.36	0.24	A
Arm 2		0.7	3.67	0.37	A		1.7	5.55	0.62	A
Arm 3		0.1	4.01	0.04	A		0.4	5.82	0.30	A
Arm 4		1.9	5.74	0.64	A		0.9	3.87	0.46	A
	2027 + Committed + Development									
Arm 1	D5	0.4	5.88	0.29	A	D6	0.3	4.36	0.24	A
Arm 2		0.7	3.83	0.40	A		1.9	6.04	0.65	A
Arm 3		0.1	4.05	0.04	A		0.5	6.14	0.31	A
Arm 4		2.2	6.30	0.67	A		0.9	3.87	0.46	A
	2032 + Committed									
Arm 1	D7	0.4	5.65	0.29	A	D8	0.3	4.41	0.25	A
Arm 2		0.7	3.76	0.38	A		1.8	5.85	0.64	A
Arm 3		0.1	4.08	0.04	A		0.5	6.11	0.32	A
Arm 4		2.1	6.05	0.66	A		0.9	3.90	0.46	A
	2032 + Committed + Development									
Arm 1	D9	0.4	5.93	0.30	A	D10	0.3	4.47	0.25	A
Arm 2		0.7	3.84	0.40	A		2.1	6.40	0.67	A
Arm 3		0.1	4.12	0.04	A		0.5	6.46	0.33	A
Arm 4		2.4	6.69	0.69	A		0.9	4.00	0.47	A

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.

File summary

File Description

Title	
Location	
Site number	
Date	07/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesWalker
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	2022	AM	ONE HOUR	07:45	09:15	15
D2	2022	PM	ONE HOUR	16:45	18:15	15
D3	2027 + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2027 + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2027 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D6	2027 + Committed + Development	PM	ONE HOUR	16:45	18:15	15
D7	2032 + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2032 + Committed	PM	ONE HOUR	16:45	18:15	15
D9	2032 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D10	2032 + Committed + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	4.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.25	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Roston Drive		
2	A47 South		
3	Triumph Access		
4	A47 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	3.00	7.00	30.0	9.0	52.0	63.0		
2	3.40	7.80	32.8	30.0	52.0	44.0		
3	3.75	7.60	10.0	43.0	52.0	39.0		
4	4.50	7.50	21.0	28.0	52.0	43.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.504	1452
2	0.627	1900
3	0.589	1650
4	0.633	1925

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	2022	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		✓	346	100.000
2		✓	530	100.000
3		✓	27	100.000
4		✓	872	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	106	4	236
	2	50	0	20	460
	3	2	23	0	2
	4	178	669	25	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	2	0	2
	2	9	0	19	13
	3	0	40	0	0
	4	2	7	10	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	260	260
	2	399	399
	3	20	20
	4	656	656
08:00-08:15	1	311	311
	2	476	476
	3	24	24
	4	784	784
08:15-08:30	1	381	381
	2	584	584
	3	30	30
	4	960	960
08:30-08:45	1	381	381
	2	584	584
	3	30	30
	4	960	960
08:45-09:00	1	311	311
	2	476	476
	3	24	24
	4	784	784
09:00-09:15	1	260	260
	2	399	399
	3	20	20
	4	656	656

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.36	5.45	0.6	A
2	0.34	3.58	0.6	A
3	0.03	4.18	0.0	A
4	0.51	4.18	1.1	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	260	538	1181	0.221	259	0.3	3.978	A
2	399	199	1775	0.225	398	0.3	2.946	A
3	20	560	1321	0.015	20	0.0	3.657	A
4	656	56	1890	0.347	654	0.6	3.084	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	311	844	1128	0.278	311	0.4	4.492	A
2	478	238	1750	0.272	478	0.4	3.187	A
3	24	870	1258	0.019	24	0.0	3.882	A
4	784	87	1883	0.418	783	0.8	3.489	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	381	788	1055	0.361	380	0.8	5.438	A
2	584	291	1717	0.340	583	0.8	3.580	A
3	30	820	1188	0.025	30	0.0	4.181	A
4	980	82	1873	0.513	959	1.1	4.167	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	381	789	1054	0.361	381	0.8	5.451	A
2	584	292	1717	0.340	584	0.8	3.583	A
3	30	821	1187	0.025	30	0.0	4.183	A
4	980	83	1873	0.513	980	1.1	4.179	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	311	848	1127	0.278	312	0.4	4.508	A
2	478	239	1750	0.272	477	0.4	3.192	A
3	24	872	1255	0.019	24	0.0	3.885	A
4	784	88	1883	0.418	785	0.8	3.481	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	280	540	1180	0.221	281	0.3	3.998	A
2	399	200	1774	0.225	399	0.3	2.954	A
3	20	582	1319	0.015	20	0.0	3.881	A
4	656	57	1890	0.347	657	0.6	3.100	A

2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	4.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.18	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	2022	PM	ONE HOUR	18:45	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		✓	278	100.000
2		✓	843	100.000
3		✓	201	100.000
4		✓	611	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	75	2	201
	2	155	4	4	680
	3	48	71	0	82
	4	174	428	9	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	1	0	1
	2	3	100	0	4
	3	0	0	0	1
	4	1	2	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	209	209
	2	635	635
	3	151	151
	4	460	460
17:00-17:15	1	250	250
	2	758	758
	3	181	181
	4	549	549
17:15-17:30	1	306	306
	2	928	928
	3	221	221
	4	673	673
17:30-17:45	1	306	306
	2	928	928
	3	221	221
	4	673	673
17:45-18:00	1	250	250
	2	758	758
	3	181	181
	4	549	549
18:00-18:15	1	209	209
	2	635	635
	3	151	151
	4	460	460

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.26	4.22	0.4	A
2	0.53	4.54	1.2	A
3	0.23	4.79	0.3	A
4	0.39	3.46	0.6	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	209	384	1258	0.166	208	0.2	3.461	A
2	635	159	1800	0.353	632	0.6	3.203	A
3	151	780	1191	0.127	151	0.1	3.472	A
4	460	209	1794	0.256	459	0.3	2.740	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	250	460	1220	0.205	250	0.3	3.745	A
2	758	190	1780	0.426	757	0.8	3.656	A
3	181	934	1101	0.164	180	0.2	3.927	A
4	549	250	1768	0.311	549	0.5	3.004	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	306	563	1168	0.262	306	0.4	4.213	A
2	928	233	1753	0.529	927	1.2	4.522	A
3	221	1143	977	0.226	221	0.3	4.776	A
4	673	306	1732	0.388	672	0.6	3.451	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	306	564	1168	0.262	306	0.4	4.217	A
2	928	233	1753	0.529	928	1.2	4.539	A
3	221	1145	976	0.227	221	0.3	4.786	A
4	673	306	1732	0.388	673	0.6	3.455	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	250	461	1220	0.205	250	0.3	3.753	A
2	758	191	1780	0.426	759	0.8	3.674	A
3	181	937	1099	0.164	181	0.2	3.939	A
4	549	250	1767	0.311	550	0.5	3.009	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	209	386	1258	0.166	210	0.2	3.471	A
2	635	160	1799	0.353	635	0.6	3.219	A
3	151	784	1189	0.127	152	0.1	3.486	A
4	460	210	1793	0.257	460	0.4	2.747	A

2027 + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.04	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	2027 + Committed	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		✓	234	100.000
2		✓	594	100.000
3		✓	41	100.000
4		✓	1090	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	72	0	162
	2	52	0	30	512
	3	3	30	0	8
	4	188	864	40	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	2
	2	9	0	19	13
	3	0	40	0	0
	4	2	7	10	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	176	176
	2	447	447
	3	31	31
	4	821	821
08:00-08:15	1	210	210
	2	534	534
	3	37	37
	4	980	980
08:15-08:30	1	258	258
	2	654	654
	3	45	45
	4	1200	1200
08:30-08:45	1	258	258
	2	654	654
	3	45	45
	4	1200	1200
08:45-09:00	1	210	210
	2	534	534
	3	37	37
	4	980	980
09:00-09:15	1	176	176
	2	447	447
	3	31	31
	4	821	821

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.28	5.43	0.4	A
2	0.37	3.67	0.7	A
3	0.04	4.01	0.1	A
4	0.64	5.74	1.9	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	176	700	1099	0.160	175	0.2	3.972	A
2	447	151	1805	0.248	448	0.4	2.989	A
3	31	545	1330	0.023	31	0.0	3.503	A
4	821	64	1885	0.435	817	0.8	3.571	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	210	839	1030	0.204	210	0.3	4.480	A
2	534	181	1788	0.299	534	0.5	3.248	A
3	37	652	1267	0.029	37	0.0	3.700	A
4	980	76	1877	0.522	979	1.1	4.249	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	258	1028	935	0.276	257	0.4	5.413	A
2	654	222	1760	0.372	653	0.7	3.670	A
3	45	798	1181	0.038	45	0.1	4.008	A
4	1200	93	1866	0.643	1197	1.9	5.689	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	258	1028	934	0.276	258	0.4	5.429	A
2	654	222	1760	0.372	654	0.7	3.674	A
3	45	799	1180	0.038	45	0.1	4.010	A
4	1200	94	1866	0.643	1200	1.9	5.739	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	210	842	1028	0.205	211	0.3	4.497	A
2	534	182	1785	0.299	535	0.5	3.254	A
3	37	654	1266	0.029	37	0.0	3.706	A
4	980	77	1877	0.522	983	1.2	4.291	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	176	704	1097	0.161	176	0.2	3.989	A
2	447	152	1804	0.248	448	0.4	2.997	A
3	31	547	1328	0.023	31	0.0	3.510	A
4	821	64	1885	0.435	822	0.8	3.604	A

2027 + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	4.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.90	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	2027 + Committed	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		✓	238	100.000
2		✓	987	100.000
3		✓	245	100.000
4		✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	57	0	181
	2	132	0	8	847
	3	43	82	0	120
	4	168	539	10	11

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	1	0	1
	2	3	100	0	4
	3	0	0	0	1
	4	1	2	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	179	179
	2	743	743
	3	184	184
	4	548	548
17:00-17:15	1	214	214
	2	887	887
	3	220	220
	4	654	654
17:15-17:30	1	262	262
	2	1087	1087
	3	270	270
	4	802	802
17:30-17:45	1	262	262
	2	1087	1087
	3	270	270
	4	802	802
17:45-18:00	1	214	214
	2	887	887
	3	220	220
	4	654	654
18:00-18:15	1	179	179
	2	743	743
	3	184	184
	4	548	548

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	4.36	0.3	A
2	0.62	5.55	1.7	A
3	0.30	5.82	0.4	A
4	0.46	3.87	0.9	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	179	482	1209	0.148	178	0.2	3.526	A
2	743	151	1805	0.412	740	0.7	3.504	A
3	184	878	1133	0.163	184	0.2	3.804	A
4	548	193	1804	0.304	546	0.4	2.909	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	214	577	1181	0.184	214	0.2	3.836	A
2	887	181	1788	0.497	886	1.0	4.150	A
3	220	1051	1032	0.214	220	0.3	4.457	A
4	654	231	1779	0.368	654	0.6	3.251	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	262	708	1096	0.239	262	0.3	4.354	A
2	1087	222	1760	0.617	1084	1.6	5.507	A
3	270	1286	893	0.302	269	0.4	5.791	A
4	802	282	1747	0.459	800	0.9	3.865	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	262	707	1096	0.239	262	0.3	4.360	A
2	1087	222	1760	0.617	1087	1.7	5.550	A
3	270	1289	891	0.303	270	0.4	5.817	A
4	802	283	1746	0.459	802	0.9	3.874	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	214	578	1181	0.184	214	0.2	3.843	A
2	887	182	1785	0.497	890	1.0	4.184	A
3	220	1055	1029	0.214	221	0.3	4.479	A
4	654	232	1779	0.368	656	0.6	3.261	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	179	484	1208	0.148	179	0.2	3.534	A
2	743	152	1804	0.412	744	0.7	3.532	A
3	184	883	1131	0.163	185	0.2	3.827	A
4	548	194	1803	0.304	549	0.4	2.922	A

2027 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.42	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	2027 + Committed + Development	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		✓	234	100.000
2		✓	633	100.000
3		✓	41	100.000
4		✓	1144	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	72	0	162
	2	52	0	52	529
	3	3	30	0	8
	4	186	918	40	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	2
	2	9	0	19	13
	3	0	40	0	0
	4	2	7	10	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	176	176
	2	477	477
	3	31	31
	4	881	881
08:00-08:15	1	210	210
	2	589	589
	3	37	37
	4	1028	1028
08:15-08:30	1	258	258
	2	697	697
	3	45	45
	4	1260	1260
08:30-08:45	1	258	258
	2	697	697
	3	45	45
	4	1260	1260
08:45-09:00	1	210	210
	2	589	589
	3	37	37
	4	1028	1028
09:00-09:15	1	176	176
	2	477	477
	3	31	31
	4	881	881

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.29	5.88	0.4	A
2	0.40	3.83	0.7	A
3	0.04	4.05	0.1	A
4	0.67	6.30	2.2	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	176	741	1079	0.163	175	0.2	4.061	A
2	477	151	1805	0.264	475	0.4	3.058	A
3	31	557	1322	0.023	31	0.0	3.523	A
4	861	64	1885	0.457	858	0.9	3.711	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	210	887	1005	0.209	210	0.3	4.618	A
2	569	181	1786	0.319	569	0.5	3.343	A
3	37	667	1258	0.029	37	0.0	3.727	A
4	1028	76	1877	0.548	1027	1.3	4.490	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	258	1085	905	0.285	257	0.4	5.659	A
2	697	222	1760	0.396	696	0.7	3.822	A
3	45	817	1170	0.039	45	0.1	4.047	A
4	1260	93	1866	0.675	1256	2.2	6.232	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	258	1088	904	0.285	258	0.4	5.681	A
2	697	222	1760	0.396	697	0.7	3.829	A
3	45	818	1169	0.039	45	0.1	4.050	A
4	1260	94	1866	0.675	1259	2.2	6.301	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	210	891	1003	0.210	211	0.3	4.638	A
2	569	182	1785	0.319	570	0.5	3.354	A
3	37	669	1257	0.029	37	0.0	3.733	A
4	1028	77	1877	0.548	1032	1.3	4.546	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	176	745	1077	0.164	176	0.2	4.080	A
2	477	152	1804	0.264	477	0.4	3.069	A
3	31	560	1321	0.023	31	0.0	3.530	A
4	861	64	1885	0.457	863	0.9	3.747	A

2027 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.17	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	2027 + Committed + Development	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		✓	238	100.000
2		✓	1037	100.000
3		✓	245	100.000
4		✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0	57	0	181
	2	132	0	8	897
	3	43	82	0	120
	4	168	539	10	11

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	1	0	1
	2	3	100	0	4
	3	0	0	0	1
	4	1	2	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	179	179
	2	781	781
	3	184	184
	4	548	548
17:00-17:15	1	214	214
	2	932	932
	3	220	220
	4	654	654
17:15-17:30	1	262	262
	2	1142	1142
	3	270	270
	4	802	802
17:30-17:45	1	262	262
	2	1142	1142
	3	270	270
	4	802	802
17:45-18:00	1	214	214
	2	932	932
	3	220	220
	4	654	654
18:00-18:15	1	179	179
	2	781	781
	3	184	184
	4	548	548

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	4.36	0.3	A
2	0.65	6.04	1.9	A
3	0.31	6.14	0.5	A
4	0.46	3.87	0.9	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	179	482	1209	0.148	178	0.2	3.526	A
2	781	151	1805	0.433	778	0.8	3.630	A
3	184	916	1111	0.166	184	0.2	3.895	A
4	548	193	1804	0.304	546	0.4	2.908	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	214	577	1161	0.184	214	0.2	3.836	A
2	932	181	1788	0.522	931	1.1	4.385	A
3	220	1096	1005	0.219	220	0.3	4.604	A
4	654	231	1779	0.368	654	0.6	3.251	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	262	708	1096	0.239	262	0.3	4.354	A
2	1142	222	1760	0.649	1139	1.9	5.984	A
3	270	1341	861	0.313	269	0.5	6.103	A
4	802	282	1747	0.459	800	0.9	3.885	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	262	707	1096	0.239	262	0.3	4.360	A
2	1142	222	1760	0.649	1142	1.9	6.042	A
3	270	1344	859	0.314	270	0.5	6.137	A
4	802	283	1746	0.459	802	0.9	3.874	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	214	578	1161	0.184	214	0.2	3.843	A
2	932	182	1785	0.522	935	1.1	4.413	A
3	220	1101	1002	0.220	221	0.3	4.635	A
4	654	232	1779	0.368	656	0.6	3.264	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	179	484	1208	0.148	179	0.2	3.536	A
2	781	152	1804	0.433	782	0.8	3.664	A
3	184	921	1108	0.166	185	0.2	3.917	A
4	548	194	1803	0.304	549	0.4	2.920	A

2032 + Committed , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.27	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	2032 + Committed	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		✓	246	100.000
2		✓	612	100.000
3		✓	42	100.000
4		✓	1119	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	75	1	170
	2	54	0	31	527
	3	3	31	0	8
	4	192	888	41	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	2
	2	9	0	19	13
	3	0	40	0	0
	4	2	7	10	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	185	185
	2	461	461
	3	32	32
	4	842	842
08:00-08:15	1	221	221
	2	550	550
	3	38	38
	4	1006	1006
08:15-08:30	1	271	271
	2	674	674
	3	46	46
	4	1232	1232
08:30-08:45	1	271	271
	2	674	674
	3	46	46
	4	1232	1232
08:45-09:00	1	221	221
	2	550	550
	3	38	38
	4	1006	1006
09:00-09:15	1	185	185
	2	461	461
	3	32	32
	4	842	842

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.29	5.65	0.4	A
2	0.38	3.76	0.7	A
3	0.04	4.08	0.1	A
4	0.66	6.05	2.1	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	185	718	1090	0.170	184	0.2	4.051	A
2	461	159	1800	0.256	459	0.4	3.030	A
3	32	563	1319	0.024	31	0.0	3.543	A
4	842	66	1884	0.447	839	0.9	3.648	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	221	860	1019	0.217	221	0.3	4.601	A
2	550	190	1780	0.309	550	0.5	3.304	A
3	38	674	1253	0.030	38	0.0	3.751	A
4	1006	79	1875	0.536	1005	1.2	4.383	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	271	1052	922	0.294	270	0.4	5.630	A
2	674	233	1753	0.384	673	0.7	3.761	A
3	46	826	1164	0.040	46	0.1	4.079	A
4	1232	97	1864	0.661	1229	2.0	5.986	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	271	1055	921	0.294	271	0.4	5.650	A
2	674	233	1753	0.384	674	0.7	3.765	A
3	46	827	1164	0.040	46	0.1	4.082	A
4	1232	97	1864	0.661	1232	2.1	6.046	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	221	864	1017	0.218	222	0.3	4.621	A
2	550	191	1780	0.309	551	0.5	3.309	A
3	38	676	1252	0.030	38	0.0	3.758	A
4	1006	79	1875	0.536	1009	1.2	4.430	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	185	723	1088	0.170	186	0.2	4.069	A
2	461	160	1799	0.256	461	0.4	3.040	A
3	32	566	1317	0.024	32	0.0	3.547	A
4	842	66	1883	0.447	844	0.9	3.682	A

2032 + Committed , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.09	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)
D8	2032 + Committed	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		✓	247	100.000
2		✓	1014	100.000
3		✓	252	100.000
4		✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	59	0	188
	2	137	0	8	889
	3	45	85	0	122
	4	173	534	10	11

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	1	0	1
	2	3	100	0	4
	3	0	0	0	1
	4	1	2	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	186	186
	2	763	763
	3	190	190
	4	548	548
17:00-17:15	1	222	222
	2	912	912
	3	227	227
	4	654	654
17:15-17:30	1	272	272
	2	1116	1116
	3	277	277
	4	802	802
17:30-17:45	1	272	272
	2	1116	1116
	3	277	277
	4	802	802
17:45-18:00	1	222	222
	2	912	912
	3	227	227
	4	654	654
18:00-18:15	1	186	186
	2	763	763
	3	190	190
	4	548	548

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	4.41	0.3	A
2	0.64	5.85	1.8	A
3	0.32	6.11	0.5	A
4	0.46	3.90	0.9	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	186	480	1210	0.154	185	0.2	3.546	A
2	763	157	1801	0.424	760	0.8	3.580	A
3	190	904	1119	0.170	189	0.2	3.888	A
4	548	200	1799	0.305	546	0.4	2.919	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	222	575	1162	0.191	222	0.2	3.884	A
2	912	188	1782	0.512	910	1.1	4.283	A
3	227	1082	1014	0.224	226	0.3	4.592	A
4	654	240	1774	0.369	654	0.6	3.267	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	272	704	1097	0.248	272	0.3	4.400	A
2	1116	230	1755	0.636	1114	1.8	5.798	A
3	277	1324	871	0.318	277	0.5	6.077	A
4	802	293	1740	0.461	800	0.9	3.893	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	272	705	1097	0.248	272	0.3	4.406	A
2	1116	230	1755	0.636	1116	1.8	5.850	A
3	277	1327	869	0.319	277	0.5	6.109	A
4	802	294	1739	0.461	802	0.9	3.903	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	222	576	1162	0.191	222	0.2	3.872	A
2	912	188	1782	0.512	914	1.1	4.324	A
3	227	1086	1011	0.224	227	0.3	4.621	A
4	654	241	1773	0.369	656	0.6	3.278	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	186	482	1209	0.154	186	0.2	3.554	A
2	763	158	1801	0.424	765	0.8	3.611	A
3	190	909	1116	0.170	190	0.2	3.909	A
4	548	201	1798	0.305	549	0.4	2.931	A

2032 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	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)
D9	2032 + Committed + Development	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		✓	246	100.000
2		✓	630	100.000
3		✓	42	100.000
4		✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	75	1	170
	2	54	0	31	545
	3	3	31	0	8
	4	192	941	41	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1	2	3	4
	1	0	2	0	2
	2	9	0	19	13
	3	0	40	0	0
	4	2	7	10	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	185	185
	2	474	474
	3	32	32
	4	884	884
08:00-08:15	1	221	221
	2	566	566
	3	38	38
	4	1055	1055
08:15-08:30	1	271	271
	2	694	694
	3	46	46
	4	1293	1293
08:30-08:45	1	271	271
	2	694	694
	3	46	46
	4	1293	1293
08:45-09:00	1	221	221
	2	566	566
	3	38	38
	4	1055	1055
09:00-09:15	1	185	185
	2	474	474
	3	32	32
	4	884	884

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	5.93	0.4	A
2	0.40	3.84	0.7	A
3	0.04	4.12	0.1	A
4	0.69	6.69	2.4	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	185	759	1089	0.173	184	0.2	4.145	A
2	474	159	1800	0.264	473	0.4	3.058	A
3	32	577	1311	0.024	31	0.0	3.585	A
4	884	66	1884	0.469	880	0.9	3.797	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	221	909	994	0.223	221	0.3	4.747	A
2	566	190	1780	0.318	566	0.5	3.345	A
3	38	691	1244	0.030	38	0.0	3.781	A
4	1055	79	1875	0.563	1054	1.4	4.645	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	271	1112	892	0.304	270	0.4	5.901	A
2	694	233	1754	0.396	693	0.7	3.828	A
3	46	845	1153	0.040	46	0.1	4.122	A
4	1293	97	1864	0.693	1289	2.3	6.599	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	271	1115	890	0.304	271	0.4	5.929	A
2	694	233	1753	0.396	694	0.7	3.835	A
3	46	847	1152	0.040	46	0.1	4.125	A
4	1293	97	1864	0.693	1292	2.4	6.688	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	221	914	991	0.223	222	0.3	4.773	A
2	566	191	1780	0.318	567	0.5	3.356	A
3	38	693	1243	0.030	38	0.0	3.788	A
4	1055	79	1875	0.563	1059	1.4	4.709	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	185	764	1087	0.174	186	0.2	4.166	A
2	474	160	1799	0.264	475	0.4	3.069	A
3	32	580	1309	0.024	32	0.0	3.570	A
4	884	66	1883	0.469	886	0.9	3.838	A

2032 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - 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	5.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.42	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)
D10	2032 + Committed + Development	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		✓	247	100.000
2		✓	1084	100.000
3		✓	252	100.000
4		✓	748	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	59	0	188
	2	137	0	8	919
	3	45	85	0	122
	4	173	554	10	11

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	1	0	1
	2	3	100	0	4
	3	0	0	0	1
	4	1	2	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	188	188
	2	801	801
	3	190	190
	4	563	563
17:00-17:15	1	222	222
	2	957	957
	3	227	227
	4	672	672
17:15-17:30	1	272	272
	2	1171	1171
	3	277	277
	4	824	824
17:30-17:45	1	272	272
	2	1171	1171
	3	277	277
	4	824	824
17:45-18:00	1	222	222
	2	957	957
	3	227	227
	4	672	672
18:00-18:15	1	188	188
	2	801	801
	3	190	190
	4	563	563

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	4.47	0.3	A
2	0.67	6.40	2.1	A
3	0.33	6.46	0.5	A
4	0.47	4.00	0.9	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	186	495	1203	0.155	185	0.2	3.573	A
2	801	157	1801	0.445	798	0.8	3.713	A
3	190	941	1097	0.173	189	0.2	3.982	A
4	563	200	1799	0.313	561	0.5	2.955	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	222	593	1153	0.193	222	0.2	3.902	A
2	957	188	1782	0.537	955	1.2	4.513	A
3	227	1127	987	0.229	226	0.3	4.751	A
4	672	240	1774	0.379	672	0.6	3.321	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	272	728	1086	0.250	272	0.3	4.460	A
2	1171	230	1755	0.667	1168	2.0	6.328	A
3	277	1378	839	0.331	277	0.5	6.421	A
4	824	293	1740	0.473	822	0.9	3.985	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	272	727	1086	0.250	272	0.3	4.466	A
2	1171	230	1755	0.667	1171	2.1	6.400	A
3	277	1382	837	0.331	277	0.5	6.463	A
4	824	294	1739	0.473	824	0.9	3.997	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	222	594	1152	0.193	222	0.2	3.910	A
2	957	188	1782	0.537	960	1.2	4.567	A
3	227	1132	984	0.230	227	0.3	4.784	A
4	672	241	1773	0.379	674	0.6	3.335	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	186	497	1201	0.155	186	0.2	3.584	A
2	801	158	1801	0.445	803	0.8	3.749	A
3	190	947	1093	0.174	190	0.2	4.006	A
4	563	201	1798	0.313	564	0.5	2.967	A

Appendix M

Stoke Road/Tudor Road – PICADY Outputs

Junctions 10				
PICADY 10 - Priority Intersection Module				
Version: 10.0.1.1519				
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Path: C:\Users\JamesCorbett\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\2019\T19595 North Hinckley\Junction Assessments\Picady

Report generation date: 24/03/2022 16:49:48

«2032 + Committed + Development, AM

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

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Stream B-AC	D1	1.5	27.06	0.61	D	D2	0.7	18.07	0.41	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 + Committed									
Stream B-AC	D3	2.0	34.93	0.68	D	D4	0.8	20.89	0.46	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 + Committed + Development									
Stream B-AC	D5	2.4	42.69	0.72	E	D6	0.9	22.82	0.48	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2032 + Committed									
Stream B-AC	D7	2.3	39.50	0.71	E	D8	0.9	22.11	0.48	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2032 + Committed + Development									
Stream B-AC	D9	2.9	49.49	0.76	E	D10	1.0	24.26	0.50	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	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	
Location	
Site number	
Date	11/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesWalker
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	Network flow scaling factor (%)
A1	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)
D9	2032 + Committed + Development	AM	ONE HOUR	07:45	09:15	15

2032 + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		7.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.61	A

Arms

Arms

Arm	Name	Description	Arm type
A	Stoke Road North		Major
B	Tudor Road		Minor
C	Stoke Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	25	45

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	508	0.092	0.234	0.147	0.334
B-C	652	0.100	0.253	-	-
C-B	719	0.278	0.278	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

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 (%)
A		✓	668	100.000
B		✓	201	100.000
C		✓	439	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	170	498
	B	201	0	0
	C	439	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	3	4
	B	0	0	2
	C	3	3	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	503	503
	B	151	151
	C	331	331
08:00-08:15	A	601	601
	B	181	181
	C	395	395
08:15-08:30	A	735	735
	B	221	221
	C	483	483
08:30-08:45	A	735	735
	B	221	221
	C	483	483
08:45-09:00	A	601	601
	B	181	181
	C	395	395
09:00-09:15	A	503	503
	B	151	151
	C	331	331

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.76	49.49	2.9	E
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	360	0.421	149	0.7	16.838	C
C-AB	0	579	0.000	0	0.0	0.000	A
C-A	331			331			
A-B	128			128			
A-C	375			375			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	181	331	0.546	179	1.1	23.401	C
C-AB	0	552	0.000	0	0.0	0.000	A
C-A	395			395			
A-B	153			153			
A-C	448			448			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	221	291	0.760	215	2.6	44.227	E
C-AB	0	514	0.000	0	0.0	0.000	A
C-A	483			483			
A-B	187			187			
A-C	548			548			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	221	291	0.760	220	2.9	49.490	E
C-AB	0	514	0.000	0	0.0	0.000	A
C-A	483			483			
A-B	187			187			
A-C	548			548			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	181	331	0.546	187	1.3	25.993	D
C-AB	0	552	0.000	0	0.0	0.000	A
C-A	395			395			
A-B	153			153			
A-C	448			448			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	380	0.421	153	0.7	17.622	C
C-AB	0	579	0.000	0	0.0	0.000	A
C-A	331			331			
A-B	128			128			
A-C	375			375			

Junctions 10				
PICADY 10 - Priority Intersection Module				
Version: 10.0.1.1519				
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: T19595 - Tudor Road - Stoke Road south junction.j10

Path: C:\Users\JamesCorbett\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\2019\T19595 North Hinckley\Junction Assessments\Picady

Report generation date: 24/03/2022 16:51:18

«2032 + Committed + Development, AM

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

Summary of junction performance

AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2022										
Stream B-AC	D1	0.4	9.32	0.26	A	D2	0.3	8.46	0.21	A
Stream C-AB		0.6	5.95	0.27	A		0.6	6.01	0.28	A
2027 + Committed										
Stream B-AC	D3	0.4	9.78	0.28	A	D4	0.3	8.92	0.23	A
Stream C-AB		0.7	5.98	0.30	A		0.7	6.19	0.30	A
2027 + Committed + Development										
Stream B-AC	D5	0.4	10.24	0.29	B	D6	0.3	9.05	0.23	A
Stream C-AB		0.8	6.12	0.32	A		0.8	6.08	0.32	A
2032 + Committed										
Stream B-AC	D7	0.4	9.99	0.29	A	D8	0.3	9.07	0.23	A
Stream C-AB		0.8	6.08	0.32	A		0.7	6.28	0.32	A
2032 + Committed + Development										
Stream B-AC	D9	0.4	10.48	0.30	B	D10	0.3	9.21	0.24	A
Stream C-AB		0.9	6.23	0.33	A		0.8	6.19	0.34	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	
Location	
Site number	
Date	11/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesWalker
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	Network flow scaling factor (%)
A1	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)
D9	2032 + Committed + Development	AM	ONE HOUR	07:45	09:15	15

2032 + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.45	A

Arms

Arms

Arm	Name	Description	Arm type
A	Stoke Road North		Major
B	Tudor Road		Minor
C	Stoke Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	60	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	507	0.092	0.233	0.147	0.333
B-C	637	0.098	0.247	-	-
C-B	719	0.278	0.278	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

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 (%)
A		✓	498	100.000
B		✓	137	100.000
C		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	498
	B	0	0	137
	C	439	125	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	3	4
	B	0	0	2
	C	3	3	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	375	375
	B	103	103
	C	425	425
08:00-08:15	A	448	448
	B	123	123
	C	507	507
08:15-08:30	A	548	548
	B	151	151
	C	621	621
08:30-08:45	A	548	548
	B	151	151
	C	621	621
08:45-09:00	A	448	448
	B	123	123
	C	507	507
09:00-09:15	A	375	375
	B	103	103
	C	425	425

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.30	10.48	0.4	B
C-AB	0.33	6.23	0.9	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	544	0.190	102	0.2	8.293	A
C-AB	156	832	0.188	155	0.4	5.470	A
C-A	268			268			
A-B	0			0			
A-C	375			375			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	526	0.234	123	0.3	9.099	A
C-AB	209	859	0.243	208	0.5	5.707	A
C-A	298			298			
A-B	0			0			
A-C	448			448			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	501	0.301	150	0.4	10.448	B
C-AB	300	898	0.334	298	0.9	6.197	A
C-A	321			321			
A-B	0			0			
A-C	548			548			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	501	0.301	151	0.4	10.477	B
C-AB	300	899	0.334	300	0.9	6.227	A
C-A	321			321			
A-B	0			0			
A-C	548			548			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	526	0.234	124	0.3	9.134	A
C-AB	209	880	0.244	211	0.5	5.738	A
C-A	298			298			
A-B	0			0			
A-C	448			448			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	544	0.190	103	0.2	8.339	A
C-AB	157	833	0.188	158	0.4	5.508	A
C-A	268			268			
A-B	0			0			
A-C	375			375			

Appendix N

Stoke Road/Holycroft/Wykin Road – ARCADY Outputs

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.1.1519				
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Filename: Wykin Road - Stoke Road.j10

Path: C:\Users\JamesCorbett\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\2019\T19595 North Hinckley\Junction Assessments\Arcady

Report generation date: 24/03/2022 16:55:12

- »2022, AM
- »2022, PM
- »2027 + Committed, AM
- »2027 + Committed, PM
- »2027 + Committed + Development, AM
- »2027 + Committed + Development, PM
- »2032 + Committed, AM
- »2032 + Committed, PM
- »2032 + Committed + Development, AM
- »2032 + Committed + Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Arm 1	D1	1.7	11.89	0.63	B	D2	1.3	9.39	0.56	A
Arm 2		1.1	8.86	0.51	A		1.1	8.68	0.53	A
Arm 3		1.2	12.39	0.55	B		0.8	10.24	0.45	B
	2027 + Committed									
Arm 1	D3	2.8	17.53	0.74	C	D4	1.8	11.68	0.65	B
Arm 2		1.4	10.42	0.59	B		1.3	9.31	0.56	A
Arm 3		2.4	20.31	0.71	C		1.0	11.21	0.48	B
	2027 + Committed + Development									
Arm 1	D5	4.5	25.41	0.82	D	D6	2.0	12.71	0.67	B
Arm 2		1.6	11.14	0.61	B		1.7	11.08	0.63	B
Arm 3		2.6	22.02	0.73	C		1.1	12.68	0.52	B
	2032 + Committed									
Arm 1	D7	3.2	19.47	0.78	C	D8	2.0	12.45	0.67	B
Arm 2		1.5	10.94	0.60	B		1.3	9.71	0.58	A
Arm 3		2.7	22.64	0.74	C		1.0	11.78	0.50	B
	2032 + Committed + Development									
Arm 1	D9	5.3	29.66	0.85	D	D10	2.2	13.57	0.69	B
Arm 2		1.7	11.74	0.63	B		1.8	11.70	0.65	B
Arm 3		3.0	24.77	0.76	C		1.2	13.44	0.54	B

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	11/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesWalker
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	38.00	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	2022	AM	ONE HOUR	07:45	09:15	15
D2	2022	PM	ONE HOUR	16:45	18:15	15
D3	2027 + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2027 + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2027 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D6	2027 + Committed + Development	PM	ONE HOUR	16:45	18:15	15
D7	2032 + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2032 + Committed	PM	ONE HOUR	16:45	18:15	15
D9	2032 + Committed + Development	AM	ONE HOUR	07:45	09:15	15
D10	2032 + Committed + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, 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	untitled	Mini-roundabout		1, 2, 3	11.03	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		11.03	B

Arms

Arms

Arm	Name	Description
1	Stoke Road	
2	Hollycroft Road	
3	Wykin Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.20	1.0	15.50	15.00	0.0	
2	3.00	3.00	3.50	3.0	8.50	5.50	0.0	
3	3.00	3.00	4.00	5.0	9.50	6.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.620	971
2	0.603	946
3	0.613	884

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	2022	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		✓	488	100.000
2		✓	402	100.000
3		✓	332	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	1	359	128
	2	303	0	99
	3	154	178	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	4	2
	2	3	0	2
	3	1	1	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	387	387
	2	303	303
	3	250	250
08:00-08:15	1	439	439
	2	381	381
	3	298	298
08:15-08:30	1	537	537
	2	443	443
	3	388	388
08:30-08:45	1	537	537
	2	443	443
	3	388	388
08:45-09:00	1	439	439
	2	381	381
	3	298	298
09:00-09:15	1	387	387
	2	303	303
	3	250	250

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.63	11.89	1.7	B
2	0.51	8.88	1.1	A
3	0.55	12.39	1.2	B

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	367	133	889	0.413	365	0.7	7.062	A
2	303	96	888	0.341	301	0.5	6.278	A
3	250	227	725	0.345	248	0.5	7.593	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	439	160	873	0.503	437	1.0	8.535	A
2	361	116	876	0.413	361	0.7	7.168	A
3	298	273	697	0.428	298	0.7	9.090	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	537	195	851	0.632	535	1.7	11.678	B
2	443	141	880	0.514	441	1.1	8.791	A
3	366	334	659	0.554	364	1.2	12.215	B

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	537	196	850	0.632	537	1.7	11.892	B
2	443	142	880	0.515	443	1.1	8.857	A
3	366	335	659	0.555	365	1.2	12.390	B

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	439	161	872	0.503	441	1.1	8.709	A
2	361	117	875	0.413	363	0.7	7.238	A
3	298	274	696	0.429	300	0.8	9.239	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	367	135	888	0.414	369	0.7	7.190	A
2	303	97	887	0.341	303	0.5	6.347	A
3	250	229	723	0.346	251	0.5	7.712	A

2022, 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	Mini-roundabout		1, 2, 3	9.33	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		9.33	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	2022	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		✓	448	100.000
2		✓	420	100.000
3		✓	272	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	3	353	92
	2	297	0	123
	3	138	131	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	1	1
	2	0	0	3
	3	3	3	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	337	337
	2	316	316
	3	205	205
17:00-17:15	1	403	403
	2	378	378
	3	245	245
17:15-17:30	1	493	493
	2	462	462
	3	299	299
17:30-17:45	1	493	493
	2	462	462
	3	299	299
17:45-18:00	1	403	403
	2	378	378
	3	245	245
18:00-18:15	1	337	337
	2	316	316
	3	205	205

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.56	9.39	1.3	A
2	0.53	8.68	1.1	A
3	0.45	10.24	0.8	B

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	337	100	909	0.371	335	0.6	6.304	A
2	316	73	901	0.351	314	0.5	6.159	A
3	205	224	726	0.282	203	0.4	7.063	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	403	120	897	0.449	402	0.8	7.329	A
2	378	88	893	0.423	377	0.7	7.029	A
3	245	269	699	0.350	244	0.5	8.137	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	493	147	880	0.560	491	1.3	9.304	A
2	462	108	881	0.525	461	1.1	8.620	A
3	299	329	662	0.452	298	0.8	10.160	B

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	493	148	880	0.560	493	1.3	9.393	A
2	462	108	881	0.525	462	1.1	8.678	A
3	299	330	861	0.453	299	0.8	10.240	B

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	403	121	896	0.449	404	0.8	7.415	A
2	378	88	892	0.423	379	0.7	7.095	A
3	245	271	698	0.350	246	0.6	8.217	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	337	101	909	0.371	338	0.6	6.384	A
2	316	74	901	0.351	317	0.6	6.227	A
3	205	226	725	0.282	205	0.4	7.140	A

2027 + Committed, 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	untitled	Mini-roundabout		1, 2, 3	16.01	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		16.01	C

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	2027 + Committed	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		✓	542	100.000
2		✓	456	100.000
3		✓	400	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	1	408	133
	2	363	0	93
	3	160	240	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	4	2
	2	3	0	2
	3	1	1	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	408	408
	2	343	343
	3	301	301
08:00-08:15	1	487	487
	2	410	410
	3	360	360
08:15-08:30	1	597	597
	2	502	502
	3	440	440
08:30-08:45	1	597	597
	2	502	502
	3	440	440
08:45-09:00	1	487	487
	2	410	410
	3	360	360
09:00-09:15	1	408	408
	2	343	343
	3	301	301

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.74	17.53	2.8	C
2	0.59	10.42	1.4	B
3	0.71	20.31	2.4	C

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	408	179	861	0.474	404	0.9	8.103	A
2	343	100	885	0.388	341	0.6	6.764	A
3	301	272	697	0.432	298	0.8	9.046	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	487	215	838	0.581	485	1.4	10.494	B
2	410	120	873	0.469	409	0.9	7.951	A
3	360	328	664	0.542	358	1.2	11.825	B

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	597	261	809	0.737	591	2.7	16.690	C
2	502	146	858	0.585	500	1.4	10.288	B
3	440	399	619	0.711	436	2.3	19.340	C

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	597	264	808	0.739	596	2.8	17.530	C
2	502	147	857	0.588	502	1.4	10.423	B
3	440	401	618	0.712	440	2.4	20.310	C

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	487	219	836	0.583	493	1.5	11.009	B
2	410	122	872	0.470	412	0.9	8.076	A
3	360	329	662	0.543	364	1.2	12.387	B

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	408	182	859	0.475	410	1.0	8.343	A
2	343	101	885	0.388	344	0.7	6.886	A
3	301	275	695	0.433	303	0.8	9.308	A

2027 + Committed, 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	Mini-roundabout		1, 2, 3	10.72	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		10.72	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)
D4	2027 + Committed	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		✓	514	100.000
2		✓	446	100.000
3		✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	3	416	95
	2	327	0	119
	3	143	139	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	1	1
	2	0	0	3
	3	3	3	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	387	387
	2	336	336
	3	212	212
17:00-17:15	1	462	462
	2	401	401
	3	254	254
17:15-17:30	1	566	566
	2	491	491
	3	310	310
17:30-17:45	1	566	566
	2	491	491
	3	310	310
17:45-18:00	1	462	462
	2	401	401
	3	254	254
18:00-18:15	1	387	387
	2	336	336
	3	212	212

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.65	11.68	1.8	B
2	0.56	9.31	1.3	A
3	0.48	11.21	1.0	B

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	387	104	907	0.427	384	0.7	6.912	A
2	336	73	902	0.372	333	0.6	6.359	A
3	212	247	713	0.298	211	0.4	7.360	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	462	125	894	0.517	461	1.1	8.363	A
2	401	88	893	0.449	400	0.8	7.351	A
3	254	296	682	0.372	253	0.6	8.618	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	566	152	877	0.645	563	1.8	11.473	B
2	491	107	881	0.557	489	1.2	9.223	A
3	310	362	642	0.484	309	0.9	11.096	B

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	566	153	877	0.646	566	1.8	11.684	B
2	491	108	881	0.558	491	1.3	9.309	A
3	310	383	641	0.484	310	1.0	11.209	B

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	462	126	894	0.517	465	1.1	8.535	A
2	401	89	892	0.449	403	0.8	7.438	A
3	254	298	681	0.372	255	0.8	8.724	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	387	105	906	0.427	388	0.8	7.035	A
2	336	74	901	0.373	337	0.6	6.441	A
3	212	249	711	0.299	213	0.4	7.453	A

2027 + Committed + Development, 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	untitled	Mini-roundabout		1, 2, 3	19.90	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		19.90	C

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	2027 + Committed + Development	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		✓	604	100.000
2		✓	477	100.000
3		✓	400	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	1	470	133
	2	384	0	93
	3	160	240	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	4	2
	2	3	0	2
	3	1	1	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	455	455
	2	359	359
	3	301	301
08:00-08:15	1	543	543
	2	429	429
	3	360	360
08:15-08:30	1	665	665
	2	525	525
	3	440	440
08:30-08:45	1	665	665
	2	525	525
	3	440	440
08:45-09:00	1	543	543
	2	429	429
	3	360	360
09:00-09:15	1	455	455
	2	359	359
	3	301	301

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.82	25.41	4.5	D
2	0.61	11.14	1.6	B
3	0.73	22.02	2.6	C

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	455	179	861	0.528	450	1.1	8.987	A
2	359	100	885	0.406	356	0.7	6.959	A
3	301	288	688	0.438	298	0.8	9.263	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	543	215	838	0.648	540	1.8	12.380	B
2	429	120	873	0.491	428	1.0	8.281	A
3	360	345	652	0.551	358	1.2	12.275	B

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	665	261	810	0.821	656	4.2	22.891	C
2	525	145	858	0.612	523	1.6	10.961	B
3	440	422	605	0.728	435	2.5	20.780	C

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	665	264	808	0.823	664	4.5	25.408	D
2	525	147	857	0.613	525	1.6	11.144	B
3	440	424	604	0.729	440	2.6	22.021	C

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	543	219	836	0.650	553	2.0	13.601	B
2	429	123	872	0.492	431	1.0	8.446	A
3	360	348	651	0.553	365	1.3	12.953	B

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	455	182	859	0.530	458	1.2	9.372	A
2	359	102	884	0.408	360	0.7	7.077	A
3	301	291	686	0.439	303	0.8	9.551	A

2027 + Committed + Development, 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	Mini-roundabout		1, 2, 3	12.08	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		12.08	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)
D6	2027 + Committed + Development	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		✓	537	100.000
2		✓	503	100.000
3		✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	3	439	95
	2	384	0	119
	3	143	139	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	1	1
	2	0	0	3
	3	3	3	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	404	404
	2	379	379
	3	212	212
17:00-17:15	1	483	483
	2	452	452
	3	254	254
17:15-17:30	1	591	591
	2	554	554
	3	310	310
17:30-17:45	1	591	591
	2	554	554
	3	310	310
17:45-18:00	1	483	483
	2	452	452
	3	254	254
18:00-18:15	1	404	404
	2	379	379
	3	212	212

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.67	12.71	2.0	B
2	0.63	11.08	1.7	B
3	0.52	12.68	1.1	B

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	404	104	907	0.446	401	0.8	7.141	A
2	379	73	902	0.420	376	0.7	6.859	A
3	212	289	687	0.309	210	0.5	7.759	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	483	125	894	0.540	481	1.2	8.772	A
2	452	88	893	0.507	451	1.0	8.187	A
3	254	347	651	0.389	253	0.6	9.293	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	591	152	877	0.674	588	2.0	12.421	B
2	554	107	881	0.629	551	1.7	10.908	B
3	310	424	604	0.514	309	1.1	12.500	B

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	591	153	877	0.674	591	2.0	12.711	B
2	554	108	881	0.629	554	1.7	11.078	B
3	310	428	803	0.515	310	1.1	12.680	B

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	483	126	894	0.540	486	1.2	8.997	A
2	452	89	892	0.507	455	1.1	8.334	A
3	254	350	649	0.390	255	0.7	9.443	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	404	105	906	0.446	406	0.8	7.288	A
2	379	74	901	0.420	380	0.7	6.973	A
3	212	292	685	0.310	213	0.5	7.878	A