

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.1.1519									
© Copyright TRL Software Limited, 2021									
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com									
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: C:\A47_The Common_B4688.j10

Path: C:\Users\NCS04445\WSP_0365\Ayyapusetty, Jayakrishna - 46_Earl Shilton - Junction modelling\03 WIP\TP\02 CAD BIM Models\231220-Junction 10 Models

Report generation date: 20/12/2023 11:43:53

»Base 2023, AM
»Base 2023, PM
»2036 DM, AM
»2036 DM, PM
»2036 DS, AM
»2036 DS, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Base 2023									
A - The Common	D1	0.2	2.90	0.18	A	D2	0.2	3.09	0.15	A
B - A47 Leicester Rd		1.2	2.78	0.54	A		0.9	2.35	0.48	A
C - B4668 Leicester Rd		0.9	6.01	0.48	A		1.8	8.74	0.65	A
D - A47 West		1.1	6.13	0.52	A		2.4	10.59	0.71	B
	2036 DM									
A - The Common	D3	0.2	3.12	0.20	A	D4	0.2	3.15	0.15	A
B - A47 Leicester Rd		1.3	2.99	0.57	A		1.0	2.52	0.51	A
C - B4668 Leicester Rd		1.0	6.59	0.51	A		2.2	10.37	0.70	B
D - A47 West		1.7	8.20	0.64	A		3.9	16.15	0.80	C
	2036 DS									
A - The Common	D5	0.2	3.16	0.19	A	D6	0.2	3.41	0.16	A
B - A47 Leicester Rd		1.6	3.36	0.62	A		1.1	2.62	0.53	A
C - B4668 Leicester Rd		1.3	7.81	0.57	A		4.0	16.24	0.81	C
D - A47 West		2.0	9.17	0.67	A		10.9	42.67	0.94	E

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.

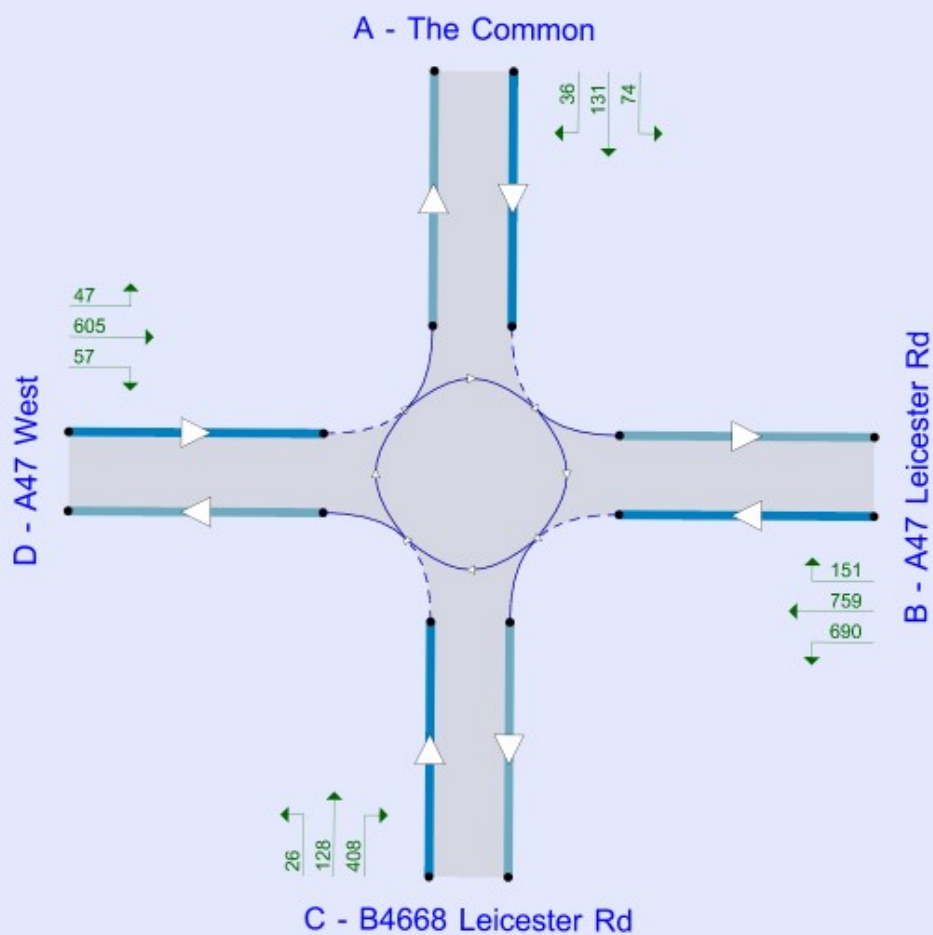
File summary

File Description

Title	Earl Shilton JunctionN modelling
Location	52.561348, -1.337295
Site number	
Date	29/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJA05275
Description	Assessment of Existing Junction layout

Units

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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Copyright © 2023 TIRL

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	2036 DM	AM	ONE HOUR	07:45	09:15	15	✓
D4	2036 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2036 DS	AM	ONE HOUR	07:45	09:15	15	✓
D6	2036 DS	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	4.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.12	A

Arms

Arms

Arm	Name	Description	No give-way line
A	The Common		
B	A47 Leicester Rd		
C	B4688 Leicester Rd		
D	A47 West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - The Common	2.83	8.02	47.4	19.9	79.9	22.5		
B - A47 Leicester Rd	7.40	10.65	13.0	69.6	79.9	10.0		
C - B4688 Leicester Rd	3.25	10.29	24.3	28.1	79.9	17.7		
D - A47 West	4.10	7.15	47.3	79.6	79.9	10.7		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - The Common	0.533	2074
B - A47 Leicester Rd	0.698	3080
C - B4688 Leicester Rd	0.580	2212
D - A47 West	0.571	2216

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
C - B4688 Leicester Rd	Direct		-504
D - A47 West	Direct		-516

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	248	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1398	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	507	100.000
D - A47 West		ONE HOUR	✓	587	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0	85	129	34
	B - A47 Leicester Rd	132	0	618	648
	C - B4668 Leicester Rd	126	355	0	26
	D - A47 West	45	485	57	0

Proportions

	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0.00	0.34	0.52	0.14
	B - A47 Leicester Rd	0.09	0.00	0.44	0.46
	C - B4668 Leicester Rd	0.25	0.70	0.00	0.05
	D - A47 West	0.08	0.83	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0	0	0	3
	B - A47 Leicester Rd	2	0	2	3
	C - B4668 Leicester Rd	1	3	0	12
	D - A47 West	0	6	9	0

Average PCU Per Veh

	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	1.000	1.000	1.000	1.030
	B - A47 Leicester Rd	1.020	1.000	1.020	1.030
	C - B4668 Leicester Rd	1.010	1.030	1.000	1.120
	D - A47 West	1.000	1.060	1.090	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	07:45-08:00	187	187
	08:00-08:15	223	224
	08:15-08:30	273	274
	08:30-08:45	273	274
	08:45-09:00	223	224
	09:00-09:15	187	187
B - A47 Leicester Rd	07:45-08:00	1052	1078
	08:00-08:15	1257	1288
	08:15-08:30	1539	1577
	08:30-08:45	1539	1577
	08:45-09:00	1257	1288
	09:00-09:15	1052	1078
C - B4668 Leicester Rd	07:45-08:00	382	393
	08:00-08:15	456	469
	08:15-08:30	558	575
	08:30-08:45	558	575
	08:45-09:00	456	469
	09:00-09:15	382	393
D - A47 West	07:45-08:00	442	468
	08:00-08:15	528	558
	08:15-08:30	646	684
	08:30-08:45	646	684
	08:45-09:00	528	558
	09:00-09:15	442	468

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.18	2.90	0.2	A	228	341
B - A47 Leicester Rd	0.54	2.78	1.2	A	1283	1924
C - B4668 Leicester Rd	0.48	6.01	0.9	A	465	698
D - A47 West	0.52	6.13	1.1	A	539	808

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	187	47	672	1691	0.110	186	227	0.0	0.1	2.392	A
B - A47 Leicester Rd	1052	263	165	2890	0.364	1050	693	0.0	0.6	1.954	A
C - B4668 Leicester Rd	382	95	611	1316	0.290	380	604	0.0	0.4	3.839	A
D - A47 West	442	110	460	1353	0.327	440	532	0.0	0.5	3.937	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	223	56	805	1617	0.138	223	272	0.1	0.2	2.582	A
B - A47 Leicester Rd	1257	314	198	2867	0.438	1256	830	0.6	0.8	2.233	A
C - B4668 Leicester Rd	456	114	731	1249	0.365	455	722	0.4	0.6	4.529	A
D - A47 West	528	132	550	1302	0.405	527	636	0.5	0.7	4.636	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	273	68	985	1517	0.180	273	333	0.2	0.2	2.894	A
B - A47 Leicester Rd	1539	385	242	2836	0.543	1538	1016	0.8	1.2	2.768	A
C - B4668 Leicester Rd	558	140	895	1158	0.482	557	884	0.6	0.9	5.984	A
D - A47 West	646	162	673	1234	0.524	645	779	0.7	1.1	6.086	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	273	68	988	1515	0.180	273	334	0.2	0.2	2.897	A
B - A47 Leicester Rd	1539	385	242	2836	0.543	1539	1018	1.2	1.2	2.775	A
C - B4668 Leicester Rd	558	140	896	1157	0.482	558	885	0.9	0.9	6.011	A
D - A47 West	646	162	675	1234	0.524	646	780	1.1	1.1	6.128	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	223	56	809	1615	0.138	223	273	0.2	0.2	2.588	A
B - A47 Leicester Rd	1257	314	198	2867	0.438	1258	834	1.2	0.8	2.241	A
C - B4668 Leicester Rd	456	114	733	1249	0.365	457	724	0.9	0.6	4.558	A
D - A47 West	528	132	553	1301	0.406	529	637	1.1	0.7	4.674	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	187	47	677	1689	0.111	187	228	0.2	0.1	2.396	A
B - A47 Leicester Rd	1052	263	166	2890	0.364	1053	698	0.8	0.6	1.962	A
C - B4668 Leicester Rd	382	95	613	1315	0.290	382	606	0.6	0.4	3.861	A
D - A47 West	442	110	462	1351	0.327	443	533	0.7	0.5	3.965	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	6.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	191	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1263	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	696	100.000
D - A47 West		ONE HOUR	✓	762	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	74	87	30
	B - A47 Leicester Rd	144	0	452	667
	C - B4668 Leicester Rd	174	478	0	44
	D - A47 West	70	656	36	0

Proportions

	To				
From		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0.00	0.39	0.46	0.16
	B - A47 Leicester Rd	0.11	0.00	0.36	0.53
	C - B4668 Leicester Rd	0.25	0.69	0.00	0.06
	D - A47 West	0.09	0.88	0.05	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	0	1	0
	B - A47 Leicester Rd	0	0	1	2
	C - B4668 Leicester Rd	1	0	0	0
	D - A47 West	0	2	0	0

Average PCU Per Veh

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	1.000	1.000	1.010	1.000
	B - A47 Leicester Rd	1.000	1.000	1.010	1.020
	C - B4668 Leicester Rd	1.010	1.000	1.000	1.000
	D - A47 West	1.000	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	16:45-17:00	144	144
	17:00-17:15	172	172
	17:15-17:30	210	211
	17:30-17:45	210	211
	17:45-18:00	172	172
	18:00-18:15	144	144
B - A47 Leicester Rd	16:45-17:00	951	964
	17:00-17:15	1135	1151
	17:15-17:30	1391	1410
	17:30-17:45	1391	1410
	17:45-18:00	1135	1151
	18:00-18:15	951	964
C - B4668 Leicester Rd	16:45-17:00	524	525
	17:00-17:15	626	627
	17:15-17:30	766	768
	17:30-17:45	766	768
	17:45-18:00	626	627
	18:00-18:15	524	525
D - A47 West	16:45-17:00	574	584
	17:00-17:15	685	697
	17:15-17:30	839	853
	17:30-17:45	839	853
	17:45-18:00	685	697
	18:00-18:15	574	584

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.15	3.09	0.2	A	175	263
B - A47 Leicester Rd	0.48	2.35	0.9	A	1159	1738
C - B4668 Leicester Rd	0.65	8.74	1.8	A	639	958
D - A47 West	0.71	10.59	2.4	B	699	1049

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	144	36	876	1595	0.090	143	291	0.0	0.1	2.480	A
B - A47 Leicester Rd	951	238	115	2957	0.322	949	905	0.0	0.5	1.790	A
C - B4668 Leicester Rd	524	131	632	1345	0.390	521	432	0.0	0.6	4.360	A
D - A47 West	574	143	597	1336	0.429	571	557	0.0	0.7	4.688	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	172	43	1049	1502	0.114	172	348	0.1	0.1	2.706	A
B - A47 Leicester Rd	1135	284	137	2942	0.386	1135	1084	0.5	0.6	1.992	A
C - B4668 Leicester Rd	626	156	756	1274	0.491	624	517	0.6	1.0	5.526	A
D - A47 West	685	171	714	1269	0.540	683	666	0.7	1.2	6.125	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	210	53	1281	1377	0.153	210	426	0.1	0.2	3.084	A
B - A47 Leicester Rd	1391	348	168	2920	0.476	1389	1323	0.6	0.9	2.351	A
C - B4668 Leicester Rd	766	192	925	1178	0.650	763	632	1.0	1.8	8.597	A
D - A47 West	839	210	873	1180	0.711	834	815	1.2	2.4	10.261	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	210	53	1288	1374	0.153	210	427	0.2	0.2	3.093	A
B - A47 Leicester Rd	1391	348	168	2920	0.476	1391	1330	0.9	0.9	2.353	A
C - B4668 Leicester Rd	766	192	926	1178	0.651	766	633	1.8	1.8	8.743	A
D - A47 West	839	210	876	1178	0.712	839	816	2.4	2.4	10.586	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	172	43	1059	1497	0.115	172	350	0.2	0.1	2.719	A
B - A47 Leicester Rd	1135	284	138	2941	0.386	1137	1093	0.9	0.6	1.997	A
C - B4668 Leicester Rd	626	156	757	1274	0.491	629	518	1.8	1.0	5.613	A
D - A47 West	685	171	719	1267	0.541	690	667	2.4	1.2	6.290	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	144	36	883	1591	0.090	144	293	0.1	0.1	2.487	A
B - A47 Leicester Rd	951	238	115	2957	0.322	951	912	0.6	0.5	1.797	A
C - B4668 Leicester Rd	524	131	634	1344	0.390	525	433	1.0	0.6	4.407	A
D - A47 West	574	143	601	1334	0.430	575	558	1.2	0.8	4.759	A

2036 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	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)	Run automatically
D3	2036 DM	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	261	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1464	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	524	100.000
D - A47 West		ONE HOUR	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From A - The Common	0	84	141	36
From B - A47 Leicester Rd	155	0	630	679
From C - B4668 Leicester Rd	129	369	0	26
From D - A47 West	47	590	57	0

Proportions

	To			
	A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From A - The Common	0.00	0.32	0.54	0.14
From B - A47 Leicester Rd	0.11	0.00	0.43	0.46
From C - B4668 Leicester Rd	0.25	0.70	0.00	0.05
From D - A47 West	0.07	0.85	0.08	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	0	0	3
	B - A47 Leicester Rd	1	0	1	5
	C - B4668 Leicester Rd	1	2	0	12
	D - A47 West	0	7	9	0

Average PCU Per Veh

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	1.000	1.000	1.000	1.030
	B - A47 Leicester Rd	1.010	1.000	1.010	1.050
	C - B4668 Leicester Rd	1.010	1.020	1.000	1.120
	D - A47 West	1.000	1.070	1.090	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	07:45-08:00	196	197
	08:00-08:15	235	236
	08:15-08:30	287	289
	08:30-08:45	287	289
	08:45-09:00	235	236
	09:00-09:15	196	197
B - A47 Leicester Rd	07:45-08:00	1102	1134
	08:00-08:15	1316	1354
	08:15-08:30	1612	1658
	08:30-08:45	1612	1658
	08:45-09:00	1316	1354
	09:00-09:15	1102	1134
C - B4668 Leicester Rd	07:45-08:00	394	403
	08:00-08:15	471	482
	08:15-08:30	577	590
	08:30-08:45	577	590
	08:45-09:00	471	482
	09:00-09:15	394	403
D - A47 West	07:45-08:00	522	557
	08:00-08:15	624	666
	08:15-08:30	764	815
	08:30-08:45	764	815
	08:45-09:00	624	666
	09:00-09:15	522	557

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.20	3.12	0.2	A	239	359
B - A47 Leicester Rd	0.57	2.99	1.3	A	1343	2015
C - B4668 Leicester Rd	0.51	6.59	1.0	A	481	721
D - A47 West	0.64	8.20	1.7	A	637	955

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	196	49	761	1640	0.120	196	248	0.0	0.1	2.493	A
B - A47 Leicester Rd	1102	276	176	2872	0.384	1100	782	0.0	0.6	2.029	A
C - B4668 Leicester Rd	394	99	653	1297	0.304	393	622	0.0	0.4	3.974	A
D - A47 West	522	131	490	1327	0.394	520	557	0.0	0.6	4.444	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	235	59	912	1556	0.151	234	297	0.1	0.2	2.723	A
B - A47 Leicester Rd	1316	329	210	2848	0.462	1315	936	0.6	0.9	2.348	A
C - B4668 Leicester Rd	471	118	782	1224	0.385	470	744	0.4	0.6	4.772	A
D - A47 West	624	156	586	1275	0.489	623	666	0.6	0.9	5.509	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	287	72	1115	1443	0.199	287	364	0.2	0.2	3.115	A
B - A47 Leicester Rd	1612	403	257	2815	0.573	1610	1145	0.9	1.3	2.982	A
C - B4668 Leicester Rd	577	144	957	1124	0.513	575	910	0.6	1.0	6.543	A
D - A47 West	764	191	717	1204	0.635	761	815	0.9	1.7	8.079	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	287	72	1119	1440	0.200	287	364	0.2	0.2	3.121	A
B - A47 Leicester Rd	1612	403	258	2815	0.573	1612	1148	1.3	1.3	2.992	A
C - B4668 Leicester Rd	577	144	958	1123	0.514	577	912	1.0	1.0	6.589	A
D - A47 West	764	191	719	1203	0.635	764	816	1.7	1.7	8.205	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	235	59	917	1553	0.151	235	298	0.2	0.2	2.733	A
B - A47 Leicester Rd	1316	329	211	2847	0.462	1318	941	1.3	0.9	2.358	A
C - B4668 Leicester Rd	471	118	783	1223	0.385	473	746	1.0	0.6	4.810	A
D - A47 West	624	156	589	1273	0.490	627	667	1.7	1.0	5.592	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	196	49	767	1637	0.120	197	250	0.2	0.1	2.500	A
B - A47 Leicester Rd	1102	276	176	2871	0.384	1103	787	0.9	0.6	2.036	A
C - B4668 Leicester Rd	394	99	656	1296	0.304	395	624	0.6	0.4	4.000	A
D - A47 West	522	131	492	1326	0.394	524	558	1.0	0.7	4.494	A

2036 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	8.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.04	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)	Run automatically
D4	2036 DM	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	180	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1360	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	718	100.000
D - A47 West		ONE HOUR	✓	820	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0	68	81	31
	B - A47 Leicester Rd	195	0	485	680
	C - B4668 Leicester Rd	202	472	0	44
	D - A47 West	73	711	36	0

Proportions

	To				
From		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0.00	0.38	0.45	0.17
	B - A47 Leicester Rd	0.14	0.00	0.36	0.50
	C - B4668 Leicester Rd	0.28	0.66	0.00	0.06
	D - A47 West	0.09	0.87	0.04	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	0	1	0
	B - A47 Leicester Rd	0	0	1	2
	C - B4668 Leicester Rd	1	0	0	0
	D - A47 West	0	3	0	0

Average PCU Per Veh

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	1.000	1.000	1.010	1.000
	B - A47 Leicester Rd	1.000	1.000	1.010	1.020
	C - B4668 Leicester Rd	1.010	1.000	1.000	1.000
	D - A47 West	1.000	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	16:45-17:00	136	136
	17:00-17:15	162	163
	17:15-17:30	198	199
	17:30-17:45	198	199
	17:45-18:00	162	163
	18:00-18:15	136	136
B - A47 Leicester Rd	16:45-17:00	1024	1038
	17:00-17:15	1223	1239
	17:15-17:30	1497	1518
	17:30-17:45	1497	1518
	17:45-18:00	1223	1239
	18:00-18:15	1024	1038
C - B4668 Leicester Rd	16:45-17:00	541	542
	17:00-17:15	645	647
	17:15-17:30	791	793
	17:30-17:45	791	793
	17:45-18:00	645	647
	18:00-18:15	541	542
D - A47 West	16:45-17:00	617	633
	17:00-17:15	737	756
	17:15-17:30	903	926
	17:30-17:45	903	926
	17:45-18:00	737	756
	18:00-18:15	617	633

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.15	3.15	0.2	A	165	248
B - A47 Leicester Rd	0.51	2.52	1.0	A	1248	1872
C - B4668 Leicester Rd	0.70	10.37	2.2	B	659	988
D - A47 West	0.80	16.15	3.9	C	752	1129

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	136	34	913	1572	0.086	135	352	0.0	0.1	2.505	A
B - A47 Leicester Rd	1024	256	111	2962	0.346	1022	937	0.0	0.5	1.854	A
C - B4668 Leicester Rd	541	135	681	1317	0.410	538	452	0.0	0.7	4.605	A
D - A47 West	617	154	651	1294	0.477	614	567	0.0	0.9	5.267	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	162	40	1093	1475	0.110	162	422	0.1	0.1	2.741	A
B - A47 Leicester Rd	1223	306	133	2946	0.415	1222	1122	0.5	0.7	2.086	A
C - B4668 Leicester Rd	645	161	814	1241	0.520	644	541	0.7	1.1	6.010	A
D - A47 West	737	184	780	1222	0.603	735	678	0.9	1.5	7.353	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	198	50	1331	1346	0.147	198	515	0.1	0.2	3.134	A
B - A47 Leicester Rd	1497	374	162	2926	0.512	1496	1367	0.7	1.0	2.515	A
C - B4668 Leicester Rd	791	198	997	1138	0.695	786	662	1.1	2.2	10.107	B
D - A47 West	903	226	952	1126	0.802	894	830	1.5	3.7	14.976	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	198	50	1341	1341	0.148	198	517	0.2	0.2	3.150	A
B - A47 Leicester Rd	1497	374	163	2926	0.512	1497	1377	1.0	1.0	2.520	A
C - B4668 Leicester Rd	791	198	998	1137	0.695	790	663	2.2	2.2	10.365	B
D - A47 West	903	226	957	1123	0.804	902	831	3.7	3.9	16.154	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	162	40	1107	1467	0.110	162	425	0.2	0.1	2.760	A
B - A47 Leicester Rd	1223	306	134	2946	0.415	1224	1136	1.0	0.7	2.093	A
C - B4668 Leicester Rd	645	161	815	1241	0.520	650	542	2.2	1.1	6.144	A
D - A47 West	737	184	786	1219	0.605	747	680	3.9	1.6	7.770	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	136	34	921	1568	0.086	136	355	0.1	0.1	2.513	A
B - A47 Leicester Rd	1024	256	112	2961	0.346	1025	945	0.7	0.5	1.861	A
C - B4668 Leicester Rd	541	135	683	1316	0.411	542	454	1.1	0.7	4.683	A
D - A47 West	617	154	656	1291	0.478	620	569	1.6	0.9	5.382	A

2036 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	5.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2036 DS	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	241	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1600	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	562	100.000
D - A47 West		ONE HOUR	✓	709	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From A - The Common	0	74	131	36
From B - A47 Leicester Rd	151	0	690	759
From C - B4668 Leicester Rd	128	408	0	26
From D - A47 West	47	605	57	0

Proportions

	To			
	A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From A - The Common	0.00	0.31	0.54	0.15
From B - A47 Leicester Rd	0.09	0.00	0.43	0.47
From C - B4668 Leicester Rd	0.23	0.73	0.00	0.05
From D - A47 West	0.07	0.85	0.08	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	0	0	3
	B - A47 Leicester Rd	1	0	1	4
	C - B4668 Leicester Rd	1	2	0	12
	D - A47 West	0	8	9	0

Average PCU Per Veh

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	1.000	1.000	1.000	1.030
	B - A47 Leicester Rd	1.010	1.000	1.010	1.040
	C - B4668 Leicester Rd	1.010	1.020	1.000	1.120
	D - A47 West	1.000	1.080	1.090	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	07:45-08:00	181	182
	08:00-08:15	217	218
	08:15-08:30	265	267
	08:30-08:45	265	267
	08:45-09:00	217	218
	09:00-09:15	181	182
B - A47 Leicester Rd	07:45-08:00	1205	1234
	08:00-08:15	1438	1473
	08:15-08:30	1762	1804
	08:30-08:45	1762	1804
	08:45-09:00	1438	1473
	09:00-09:15	1205	1234
C - B4668 Leicester Rd	07:45-08:00	423	433
	08:00-08:15	505	517
	08:15-08:30	619	633
	08:30-08:45	619	633
	08:45-09:00	505	517
	09:00-09:15	423	433
D - A47 West	07:45-08:00	534	574
	08:00-08:15	637	685
	08:15-08:30	781	840
	08:30-08:45	781	840
	08:45-09:00	637	685
	09:00-09:15	534	574

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.19	3.16	0.2	A	221	332
B - A47 Leicester Rd	0.62	3.36	1.6	A	1468	2202
C - B4668 Leicester Rd	0.57	7.81	1.3	A	516	774
D - A47 West	0.67	9.17	2.0	A	651	976

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	181	45	802	1615	0.112	181	245	0.0	0.1	2.510	A
B - A47 Leicester Rd	1205	301	168	2889	0.417	1202	814	0.0	0.7	2.130	A
C - B4668 Leicester Rd	423	106	711	1267	0.334	421	659	0.0	0.5	4.245	A
D - A47 West	534	133	515	1303	0.410	531	617	0.0	0.7	4.645	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	217	54	960	1526	0.142	216	293	0.1	0.2	2.748	A
B - A47 Leicester Rd	1438	360	201	2866	0.502	1437	975	0.7	1.0	2.517	A
C - B4668 Leicester Rd	505	126	850	1188	0.425	504	789	0.5	0.7	5.254	A
D - A47 West	637	159	617	1248	0.511	636	737	0.7	1.0	5.867	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	265	66	1173	1407	0.189	265	358	0.2	0.2	3.153	A
B - A47 Leicester Rd	1762	440	246	2834	0.622	1759	1192	1.0	1.6	3.341	A
C - B4668 Leicester Rd	619	155	1040	1080	0.573	616	965	0.7	1.3	7.719	A
D - A47 West	781	195	754	1174	0.665	777	903	1.0	1.9	8.984	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	265	66	1178	1404	0.189	265	359	0.2	0.2	3.161	A
B - A47 Leicester Rd	1762	440	247	2834	0.622	1762	1197	1.6	1.6	3.356	A
C - B4668 Leicester Rd	619	155	1042	1080	0.573	619	967	1.3	1.3	7.807	A
D - A47 West	781	195	756	1173	0.666	780	904	1.9	2.0	9.168	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	217	54	967	1522	0.142	217	294	0.2	0.2	2.760	A
B - A47 Leicester Rd	1438	360	202	2865	0.502	1441	982	1.6	1.0	2.532	A
C - B4668 Leicester Rd	505	126	852	1187	0.426	508	791	1.3	0.7	5.315	A
D - A47 West	637	159	620	1246	0.511	641	739	2.0	1.1	5.983	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	181	45	808	1612	0.113	182	246	0.2	0.1	2.517	A
B - A47 Leicester Rd	1205	301	169	2889	0.417	1206	820	1.0	0.7	2.142	A
C - B4668 Leicester Rd	423	106	713	1266	0.334	424	662	0.7	0.5	4.281	A
D - A47 West	534	133	518	1301	0.410	535	619	1.1	0.7	4.707	A

2036 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - The Common - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A47 West - 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	A47/The Common/B4688	Standard Roundabout		A, B, C, D	16.99	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.99	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)	Run automatically
D6	2036 DS	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 (Veh/hr)	Scaling Factor (%)
A - The Common		ONE HOUR	✓	182	100.000
B - A47 Leicester Rd		ONE HOUR	✓	1399	100.000
C - B4668 Leicester Rd		ONE HOUR	✓	836	100.000
D - A47 West		ONE HOUR	✓	895	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0	70	81	31
	B - A47 Leicester Rd	195	0	535	669
	C - B4668 Leicester Rd	245	547	0	44
	D - A47 West	73	786	36	0

Proportions

		To			
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
From	A - The Common	0.00	0.38	0.45	0.17
	B - A47 Leicester Rd	0.14	0.00	0.38	0.48
	C - B4668 Leicester Rd	0.29	0.65	0.00	0.05
	D - A47 West	0.08	0.88	0.04	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	0	0	1	0
	B - A47 Leicester Rd	0	0	1	3
	C - B4668 Leicester Rd	1	0	0	0
	D - A47 West	0	3	0	0

Average PCU Per Veh

From	To				
		A - The Common	B - A47 Leicester Rd	C - B4668 Leicester Rd	D - A47 West
	A - The Common	1.000	1.000	1.010	1.000
	B - A47 Leicester Rd	1.000	1.000	1.010	1.030
	C - B4668 Leicester Rd	1.010	1.000	1.000	1.000
	D - A47 West	1.000	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - The Common	16:45-17:00	137	138
	17:00-17:15	164	164
	17:15-17:30	200	201
	17:30-17:45	200	201
	17:45-18:00	164	164
	18:00-18:15	137	138
B - A47 Leicester Rd	16:45-17:00	1053	1072
	17:00-17:15	1258	1281
	17:15-17:30	1540	1568
	17:30-17:45	1540	1568
	17:45-18:00	1258	1281
	18:00-18:15	1053	1072
C - B4668 Leicester Rd	16:45-17:00	629	631
	17:00-17:15	752	754
	17:15-17:30	920	923
	17:30-17:45	920	923
	17:45-18:00	752	754
	18:00-18:15	629	631
D - A47 West	16:45-17:00	674	692
	17:00-17:15	805	826
	17:15-17:30	985	1011
	17:30-17:45	985	1011
	17:45-18:00	805	826
	18:00-18:15	674	692

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - The Common	0.16	3.41	0.2	A	167	251
B - A47 Leicester Rd	0.53	2.62	1.1	A	1284	1926
C - B4668 Leicester Rd	0.81	16.24	4.0	C	767	1151
D - A47 West	0.94	42.67	10.9	E	821	1232

20/12/2023 11:47:30 Page 11

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	137	34	1024	1512	0.091	137	384	0.0	0.1	2.617	A
B - A47 Leicester Rd	1053	263	111	2948	0.357	1051	1050	0.0	0.6	1.895	A
C - B4668 Leicester Rd	629	157	672	1319	0.477	626	490	0.0	0.9	5.169	A
D - A47 West	674	168	739	1244	0.542	669	559	0.0	1.2	6.213	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	164	41	1225	1403	0.117	163	460	0.1	0.1	2.902	A
B - A47 Leicester Rd	1258	314	133	2933	0.429	1257	1256	0.6	0.7	2.146	A
C - B4668 Leicester Rd	752	188	804	1243	0.604	749	586	0.9	1.5	7.249	A
D - A47 West	805	201	885	1163	0.692	801	668	1.2	2.2	9.828	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	200	50	1476	1268	0.158	200	560	0.1	0.2	3.370	A
B - A47 Leicester Rd	1540	385	162	2913	0.529	1539	1514	0.7	1.1	2.617	A
C - B4668 Leicester Rd	920	230	984	1140	0.807	911	716	1.5	3.9	15.111	C
D - A47 West	985	246	1078	1055	0.934	958	818	2.2	9.1	30.814	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	200	50	1500	1255	0.160	200	564	0.2	0.2	3.411	A
B - A47 Leicester Rd	1540	385	163	2913	0.529	1540	1538	1.1	1.1	2.622	A
C - B4668 Leicester Rd	920	230	985	1140	0.808	920	718	3.9	4.0	16.237	C
D - A47 West	985	246	1086	1051	0.938	978	819	9.1	10.9	42.670	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	164	41	1269	1380	0.119	164	467	0.2	0.1	2.962	A
B - A47 Leicester Rd	1258	314	135	2932	0.429	1259	1298	1.1	0.8	2.153	A
C - B4668 Leicester Rd	752	188	806	1243	0.605	761	588	4.0	1.6	7.628	A
D - A47 West	805	201	897	1156	0.696	839	670	10.9	2.4	12.493	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - The Common	137	34	1037	1505	0.091	137	387	0.1	0.1	2.630	A
B - A47 Leicester Rd	1053	263	112	2948	0.357	1054	1062	0.8	0.6	1.900	A
C - B4668 Leicester Rd	629	157	674	1318	0.478	632	491	1.6	0.9	5.289	A
D - A47 West	674	168	746	1241	0.543	678	561	2.4	1.2	6.455	A



Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.1.1519				
© Copyright TRL Software Limited, 2021				
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com				
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: D.A47_Leicester Road.j10

Path: C:\Users\NCS04445\WSP_0365\Ayyapusetty, Jayakrishna - 46_Earl Shilton - Junction modelling\03 WIP\TP\02 CAD BIM Models\231220-Junction 10 Models

Report generation date: 20/12/2023 11:24:52

»Base 2023, AM
»Base 2023, PM
»2036 DM, AM
»2036 DM, PM
»2036 DS, AM
»2036 DS, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (min)	RFC	LOS	Set ID	Queue (Veh)	Delay (min)	RFC	LOS
	Base 2023									
A - A47 (E)	D1	1.8	0.10	0.65	A	D2	1.8	0.09	0.65	A
B - A47 (W)		0.7	0.04	0.42	A		1.2	0.05	0.55	A
C - Leicester Road (N)		0.8	0.07	0.44	A		0.5	0.06	0.32	A
	2036 DM									
A - A47 (E)	D3	2.1	0.11	0.68	A	D4	2.4	0.11	0.71	A
B - A47 (W)		0.9	0.05	0.48	A		1.3	0.06	0.57	A
C - Leicester Road (N)		1.0	0.09	0.51	A		0.5	0.07	0.34	A
	2036 DS									
A - A47 (E)	D5	3.0	0.14	0.75	A	D6	2.9	0.12	0.74	A
B - A47 (W)		1.0	0.05	0.50	A		1.8	0.07	0.64	A
C - Leicester Road (N)		1.2	0.09	0.54	A		0.6	0.07	0.37	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.

10/12/2023 11:24:52

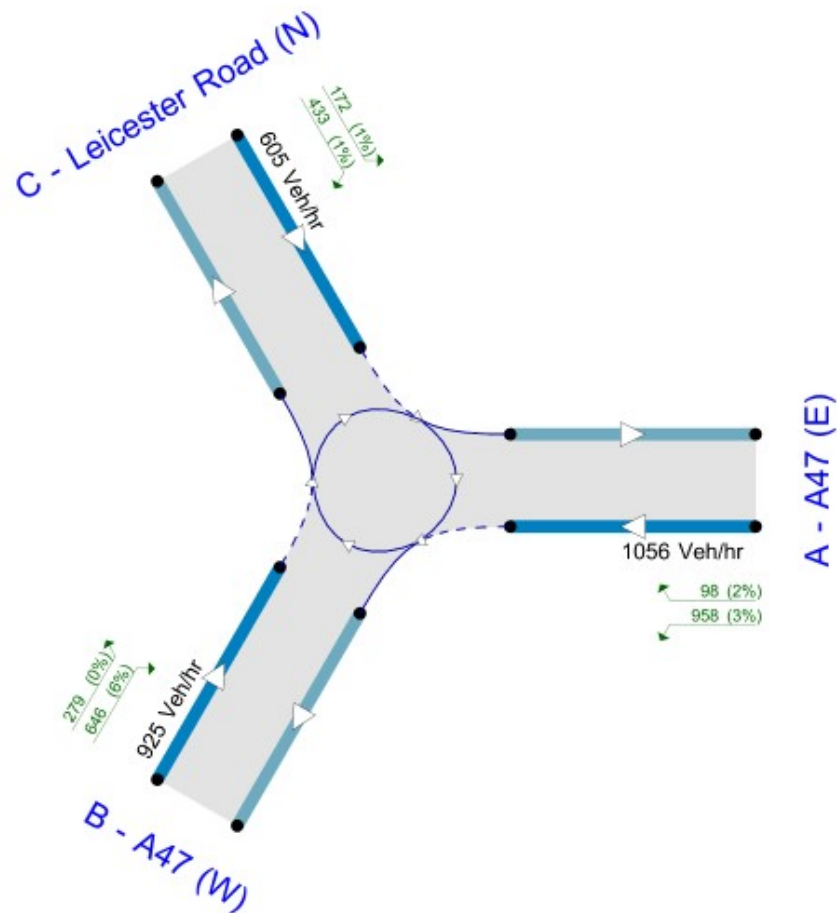
File summary

File Description

Title	A47_Leicester Road
Location	
Site number	
Date	29/11/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	INCS04445
Description	

Units

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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	0.60	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	2036 DM	AM	ONE HOUR	07:45	09:15	15	✓
D4	2036 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2036 DS	AM	ONE HOUR	07:45	09:15	15	✓
D6	2036 DS	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.07	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.07	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A47 (E)		
B	A47 (W)		
C	Leicester Road (N)		

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
A - A47 (E)	5.89	7.78	51.2	30.1	79.6	8.0		
B - A47 (W)	7.25	11.97	16.1	38.7	79.6	32.0		
C - Leicester Road (N)	3.73	11.74	17.6	39.2	79.6	37.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 (E)	0.613	2510
B - A47 (W)	0.668	2982
C - Leicester Road (N)	0.534	2117

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
A - A47 (E)	Direct		-373
B - A47 (W)	Direct		-398
C - Leicester Road (N)	Direct		-200

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1056	100.000
B - A47 (W)		ONE HOUR	✓	925	100.000
C - Leicester Road (N)		ONE HOUR	✓	605	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
	From			
	A - A47 (E)	0	958	98
	B - A47 (W)	646	0	279
	C - Leicester Road (N)	172	433	0

Proportions

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
	From			
	A - A47 (E)	0.00	0.91	0.09
	B - A47 (W)	0.70	0.00	0.30
	C - Leicester Road (N)	0.28	0.72	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
	From			
	A - A47 (E)	0	3	2
	B - A47 (W)	6	0	0
	C - Leicester Road (N)	1	1	0

Average PCU Per Veh

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
	From			
	A - A47 (E)	1.000	1.030	1.020
	B - A47 (W)	1.060	1.000	1.000
	C - Leicester Road (N)	1.013	1.010	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	07:45-08:00	795	818
	08:00-08:15	949	977
	08:15-08:30	1163	1196
	08:30-08:45	1163	1196
	08:45-09:00	949	977
	09:00-09:15	795	818
B - A47 (W)	07:45-08:00	696	726
	08:00-08:15	832	866
	08:15-08:30	1018	1061
	08:30-08:45	1018	1061
	08:45-09:00	832	866
	09:00-09:15	696	726
C - Leicester Road (N)	07:45-08:00	455	460
	08:00-08:15	544	550
	08:15-08:30	666	673
	08:30-08:45	666	673
	08:45-09:00	544	550
	09:00-09:15	455	460

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.65	0.10	1.8	A	969	1454
B - A47 (W)	0.42	0.04	0.7	A	849	1273
C - Leicester Road (N)	0.44	0.07	0.8	A	555	833

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	795	199	325	1881	0.423	792	614	0.0	0.7	0.055	A
B - A47 (W)	696	174	74	2433	0.286	695	1043	0.0	0.4	0.034	A
C - Leicester Road (N)	455	114	485	1624	0.280	454	283	0.0	0.4	0.051	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	949	237	389	1843	0.515	948	735	0.7	1.1	0.067	A
B - A47 (W)	832	208	88	2423	0.343	831	1249	0.4	0.5	0.038	A
C - Leicester Road (N)	544	136	580	1571	0.346	543	339	0.4	0.5	0.058	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1163	291	476	1790	0.649	1160	900	1.1	1.8	0.095	A
B - A47 (W)	1018	255	108	2410	0.423	1018	1528	0.5	0.7	0.043	A
C - Leicester Road (N)	666	167	711	1498	0.445	665	415	0.5	0.8	0.072	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1163	291	477	1790	0.650	1163	901	1.8	1.8	0.096	A
B - A47 (W)	1018	255	108	2410	0.423	1018	1531	0.7	0.7	0.043	A
C - Leicester Road (N)	666	167	711	1498	0.445	666	415	0.8	0.8	0.072	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	949	237	390	1842	0.515	952	736	1.8	1.1	0.068	A
B - A47 (W)	832	208	88	2423	0.343	832	1254	0.7	0.5	0.038	A
C - Leicester Road (N)	544	136	581	1570	0.346	545	339	0.8	0.5	0.059	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	795	199	326	1880	0.423	796	616	1.1	0.7	0.055	A
B - A47 (W)	696	174	74	2432	0.286	697	1049	0.5	0.4	0.035	A
C - Leicester Road (N)	455	114	487	1624	0.281	456	284	0.5	0.4	0.051	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.07	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.07	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1129	100.000
B - A47 (W)		ONE HOUR	✓	1204	100.000
C - Leicester Road (N)		ONE HOUR	✓	417	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	959	170
	B - A47 (W)	789	0	415
	C - Leicester Road (N)	121	296	0

Proportions

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0.00	0.85	0.15
	B - A47 (W)	0.66	0.00	0.34
	C - Leicester Road (N)	0.29	0.71	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	2	0
	B - A47 (W)	2	0	0
	C - Leicester Road (N)	0	1	0

Average PCU Per Veh

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	1.000	1.016	1.000
	B - A47 (W)	1.020	1.000	1.002
	C - Leicester Road (N)	1.000	1.009	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	16:45-17:00	850	882
	17:00-17:15	1015	1029
	17:15-17:30	1243	1280
	17:30-17:45	1243	1280
	17:45-18:00	1015	1029
	18:00-18:15	850	882
B - A47 (W)	16:45-17:00	906	919
	17:00-17:15	1082	1097
	17:15-17:30	1326	1344
	17:30-17:45	1326	1344
	17:45-18:00	1082	1097
	18:00-18:15	906	919
C - Leicester Road (N)	16:45-17:00	314	316
	17:00-17:15	375	377
	17:15-17:30	459	462
	17:30-17:45	459	462
	17:45-18:00	375	377
	18:00-18:15	314	316

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.65	0.09	1.8	A	1036	1554
B - A47 (W)	0.55	0.05	1.2	A	1105	1657
C - Leicester Road (N)	0.32	0.06	0.5	A	383	574

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	850	212	222	1973	0.431	847	683	0.0	0.8	0.053	A
B - A47 (W)	906	227	128	2466	0.368	904	942	0.0	0.6	0.038	A
C - Leicester Road (N)	314	78	592	1584	0.198	313	439	0.0	0.2	0.047	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1015	254	268	1946	0.522	1014	817	0.8	1.1	0.064	A
B - A47 (W)	1082	271	153	2449	0.442	1082	1127	0.6	0.8	0.044	A
C - Leicester Road (N)	375	94	709	1521	0.247	375	525	0.2	0.3	0.052	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1243	311	325	1910	0.651	1240	1001	1.1	1.8	0.089	A
B - A47 (W)	1326	331	187	2427	0.546	1324	1379	0.8	1.2	0.054	A
C - Leicester Road (N)	459	115	888	1435	0.320	459	643	0.3	0.5	0.061	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1243	311	326	1909	0.651	1243	1002	1.8	1.8	0.090	A
B - A47 (W)	1326	331	187	2426	0.546	1326	1382	1.2	1.2	0.054	A
C - Leicester Road (N)	459	115	889	1434	0.320	459	644	0.5	0.5	0.062	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1015	254	266	1946	0.522	1018	819	1.8	1.1	0.065	A
B - A47 (W)	1082	271	153	2449	0.442	1084	1131	1.2	0.8	0.044	A
C - Leicester Road (N)	375	94	710	1520	0.247	375	527	0.5	0.3	0.052	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	850	212	223	1972	0.431	851	686	1.1	0.8	0.054	A
B - A47 (W)	906	227	128	2465	0.368	907	946	0.8	0.6	0.039	A
C - Leicester Road (N)	314	78	595	1583	0.198	314	441	0.3	0.2	0.047	A

2036 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.08	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2036 DM	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1085	100.000
B - A47 (W)		ONE HOUR	✓	1042	100.000
C - Leicester Road (N)		ONE HOUR	✓	656	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	991	94
	B - A47 (W)	766	0	276
	C - Leicester Road (N)	190	466	0

Proportions

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0.00	0.91	0.09
	B - A47 (W)	0.74	0.00	0.26
	C - Leicester Road (N)	0.29	0.71	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	4	2
	B - A47 (W)	7	0	0
	C - Leicester Road (N)	1	1	0

Average PCU Per Veh

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	1.000	1.035	1.020
	B - A47 (W)	1.070	1.000	1.000
	C - Leicester Road (N)	1.010	1.010	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	07:45-08:00	817	844
	08:00-08:15	975	1008
	08:15-08:30	1195	1235
	08:30-08:45	1195	1235
	08:45-09:00	975	1008
	09:00-09:15	817	844
B - A47 (W)	07:45-08:00	784	825
	08:00-08:15	937	985
	08:15-08:30	1147	1206
	08:30-08:45	1147	1206
	08:45-09:00	937	985
	09:00-09:15	784	825
C - Leicester Road (N)	07:45-08:00	494	499
	08:00-08:15	590	596
	08:15-08:30	722	729
	08:30-08:45	722	729
	08:45-09:00	590	596
	09:00-09:15	494	499

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.68	0.11	2.1	A	996	1493
B - A47 (W)	0.48	0.05	0.9	A	956	1434
C - Leicester Road (N)	0.51	0.09	1.0	A	602	903

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	817	204	350	1858	0.440	814	718	0.0	0.8	0.057	A
B - A47 (W)	784	196	70	2412	0.325	783	1093	0.0	0.5	0.037	A
C - Leicester Road (N)	494	123	575	1572	0.314	492	278	0.0	0.5	0.055	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	975	244	418	1817	0.537	974	859	0.8	1.1	0.071	A
B - A47 (W)	937	234	84	2403	0.390	936	1308	0.5	0.6	0.041	A
C - Leicester Road (N)	590	147	688	1508	0.391	589	332	0.5	0.6	0.065	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1195	299	512	1781	0.679	1191	1051	1.1	2.1	0.105	A
B - A47 (W)	1147	287	103	2391	0.480	1146	1600	0.6	0.9	0.048	A
C - Leicester Road (N)	722	181	843	1421	0.508	721	407	0.6	1.0	0.086	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1195	299	513	1760	0.679	1195	1053	2.1	2.1	0.106	A
B - A47 (W)	1147	287	103	2391	0.480	1147	1604	0.9	0.9	0.048	A
C - Leicester Road (N)	722	181	843	1420	0.509	722	407	1.0	1.0	0.086	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	975	244	420	1816	0.537	979	861	2.1	1.2	0.072	A
B - A47 (W)	937	234	85	2403	0.390	938	1314	0.9	0.6	0.041	A
C - Leicester Road (N)	590	147	689	1508	0.391	591	333	1.0	0.6	0.066	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	817	204	351	1857	0.440	818	720	1.2	0.8	0.058	A
B - A47 (W)	784	196	71	2412	0.325	785	1099	0.6	0.5	0.037	A
C - Leicester Road (N)	494	123	577	1571	0.314	495	279	0.6	0.5	0.056	A

2036 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.08	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2036 DM	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1228	100.000
B - A47 (W)		ONE HOUR	✓	1246	100.000
C - Leicester Road (N)		ONE HOUR	✓	431	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0	1048	180
B - A47 (W)		880	0	388
C - Leicester Road (N)		128	303	0

Proportions

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0.00	0.85	0.15
B - A47 (W)		0.69	0.00	0.31
C - Leicester Road (N)		0.30	0.70	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0	2	0
B - A47 (W)		2	0	0
C - Leicester Road (N)		0	1	0

Average PCU Per Veh

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		1.000	1.016	1.000
B - A47 (W)		1.020	1.000	1.002
C - Leicester Road (N)		1.000	1.009	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	16:45-17:00	925	937
	17:00-17:15	1104	1119
	17:15-17:30	1352	1371
	17:30-17:45	1352	1371
	17:45-18:00	1104	1119
	18:00-18:15	925	937
B - A47 (W)	16:45-17:00	938	952
	17:00-17:15	1120	1136
	17:15-17:30	1372	1392
	17:30-17:45	1372	1392
	17:45-18:00	1120	1136
	18:00-18:15	938	952
C - Leicester Road (N)	16:45-17:00	324	327
	17:00-17:15	387	390
	17:15-17:30	475	478
	17:30-17:45	475	478
	17:45-18:00	387	390
	18:00-18:15	324	327

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.71	0.11	2.4	A	1127	1690
B - A47 (W)	0.57	0.08	1.3	A	1143	1715
C - Leicester Road (N)	0.34	0.07	0.5	A	395	593

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	925	231	227	1969	0.469	921	742	0.0	0.9	0.057	A
B - A47 (W)	938	235	135	2459	0.381	936	1013	0.0	0.6	0.039	A
C - Leicester Road (N)	324	81	646	1555	0.209	323	425	0.0	0.3	0.049	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1104	276	272	1942	0.588	1102	887	0.9	1.3	0.071	A
B - A47 (W)	1120	280	162	2442	0.459	1119	1213	0.6	0.8	0.045	A
C - Leicester Road (N)	387	97	772	1486	0.261	387	508	0.3	0.4	0.055	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1352	338	333	1905	0.710	1348	1088	1.3	2.4	0.107	A
B - A47 (W)	1372	343	198	2418	0.567	1370	1483	0.8	1.3	0.057	A
C - Leicester Road (N)	475	119	946	1393	0.341	474	622	0.4	0.5	0.065	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1352	338	334	1905	0.710	1352	1088	2.4	2.4	0.108	A
B - A47 (W)	1372	343	198	2418	0.567	1372	1487	1.3	1.3	0.057	A
C - Leicester Road (N)	475	119	947	1392	0.341	475	623	0.5	0.5	0.065	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1104	276	273	1942	0.569	1108	890	2.4	1.3	0.072	A
B - A47 (W)	1120	280	162	2441	0.459	1122	1219	1.3	0.9	0.046	A
C - Leicester Road (N)	387	97	774	1485	0.261	388	510	0.5	0.4	0.055	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	925	231	228	1989	0.470	926	745	1.3	0.9	0.058	A
B - A47 (W)	938	235	136	2459	0.382	939	1019	0.9	0.6	0.039	A
C - Leicester Road (N)	324	81	648	1554	0.209	325	427	0.4	0.3	0.049	A

2036 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.10	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2036 DS	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1199	100.000
B - A47 (W)		ONE HOUR	✓	1087	100.000
C - Leicester Road (N)		ONE HOUR	✓	683	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	1105	94
	B - A47 (W)	814	0	273
	C - Leicester Road (N)	195	488	0

Proportions

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0.00	0.92	0.08
	B - A47 (W)	0.75	0.00	0.25
	C - Leicester Road (N)	0.29	0.71	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	0	3	2
	B - A47 (W)	7	0	0
	C - Leicester Road (N)	1	1	0

Average PCU Per Veh

	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
From	A - A47 (E)	1.000	1.030	1.020
	B - A47 (W)	1.070	1.000	1.000
	C - Leicester Road (N)	1.010	1.010	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	07:45-08:00	903	929
	08:00-08:15	1078	1109
	08:15-08:30	1320	1359
	08:30-08:45	1320	1359
	08:45-09:00	1078	1109
	09:00-09:15	903	929
B - A47 (W)	07:45-08:00	818	881
	08:00-08:15	977	1028
	08:15-08:30	1197	1280
	08:30-08:45	1197	1280
	08:45-09:00	977	1028
	09:00-09:15	818	881
C - Leicester Road (N)	07:45-08:00	514	519
	08:00-08:15	614	620
	08:15-08:30	752	760
	08:30-08:45	752	760
	08:45-09:00	614	620
	09:00-09:15	514	519

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.75	0.14	3.0	A	1100	1650
B - A47 (W)	0.50	0.05	1.0	A	997	1496
C - Leicester Road (N)	0.54	0.09	1.2	A	627	940

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	903	226	366	1856	0.486	899	758	0.0	0.9	0.062	A
B - A47 (W)	818	205	70	2410	0.340	816	1194	0.0	0.5	0.038	A
C - Leicester Road (N)	514	129	611	1552	0.331	512	275	0.0	0.5	0.058	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1078	269	438	1813	0.595	1076	906	0.9	1.4	0.081	A
B - A47 (W)	977	244	84	2401	0.407	977	1430	0.5	0.7	0.042	A
C - Leicester Road (N)	614	154	731	1484	0.414	613	330	0.5	0.7	0.069	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1320	330	538	1754	0.753	1314	1109	1.4	2.9	0.135	A
B - A47 (W)	1197	299	103	2389	0.501	1198	1747	0.7	1.0	0.050	A
C - Leicester Road (N)	752	188	895	1391	0.541	750	403	0.7	1.2	0.093	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1320	330	537	1753	0.753	1320	1111	2.9	3.0	0.138	A
B - A47 (W)	1197	299	103	2389	0.501	1197	1754	1.0	1.0	0.050	A
C - Leicester Road (N)	752	188	898	1390	0.541	752	404	1.2	1.2	0.094	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1078	289	440	1812	0.595	1084	909	3.0	1.5	0.083	A
B - A47 (W)	977	244	85	2401	0.407	978	1439	1.0	0.7	0.042	A
C - Leicester Road (N)	614	154	733	1483	0.414	616	331	1.2	0.7	0.069	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	903	226	388	1855	0.487	905	760	1.5	1.0	0.063	A
B - A47 (W)	818	205	71	2410	0.340	819	1202	0.7	0.5	0.038	A
C - Leicester Road (N)	514	129	613	1551	0.332	515	277	0.7	0.5	0.058	A

2036 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A47 (E) - 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 (min)	Junction LOS
1	A47 Leicester Road (N)	Standard Roundabout		A, B, C	0.09	A

Junction Network

Driving side	Lighting	Network delay (min)	Network LOS
Left	Normal/unknown	0.09	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)	Run automatically
D6	2036 DS	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 (Veh/hr)	Scaling Factor (%)
A - A47 (E)		ONE HOUR	✓	1289	100.000
B - A47 (W)		ONE HOUR	✓	1399	100.000
C - Leicester Road (N)		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0	1092	197
B - A47 (W)		1037	0	362
C - Leicester Road (N)		128	299	0

Proportions

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0.00	0.85	0.15
B - A47 (W)		0.74	0.00	0.26
C - Leicester Road (N)		0.30	0.70	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		0	2	0
B - A47 (W)		2	0	0
C - Leicester Road (N)		0	1	0

Average PCU Per Veh

From	To			
		A - A47 (E)	B - A47 (W)	C - Leicester Road (N)
A - A47 (E)		1.000	1.016	1.000
B - A47 (W)		1.020	1.000	1.002
C - Leicester Road (N)		1.000	1.009	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A47 (E)	16:45-17:00	970	984
	17:00-17:15	1159	1174
	17:15-17:30	1419	1438
	17:30-17:45	1419	1438
	17:45-18:00	1159	1174
	18:00-18:15	970	984
B - A47 (W)	16:45-17:00	1053	1089
	17:00-17:15	1258	1277
	17:15-17:30	1540	1564
	17:30-17:45	1540	1564
	17:45-18:00	1258	1277
	18:00-18:15	1053	1089
C - Leicester Road (N)	16:45-17:00	321	323
	17:00-17:15	384	386
	17:15-17:30	470	473
	17:30-17:45	470	473
	17:45-18:00	384	386
	18:00-18:15	321	323

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A47 (E)	0.74	0.12	2.9	A	1183	1774
B - A47 (W)	0.64	0.07	1.8	A	1284	1926
C - Leicester Road (N)	0.37	0.07	0.6	A	392	588

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	970	243	224	1971	0.492	967	875	0.0	1.0	0.059	A
B - A47 (W)	1053	263	148	2449	0.430	1050	1043	0.0	0.8	0.043	A
C - Leicester Road (N)	321	80	778	1483	0.217	320	419	0.0	0.3	0.052	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1159	290	269	1944	0.596	1157	1046	1.0	1.5	0.076	A
B - A47 (W)	1258	314	177	2429	0.518	1256	1249	0.8	1.1	0.051	A
C - Leicester Road (N)	384	96	931	1400	0.274	383	502	0.3	0.4	0.059	A

Copyright 2023 TRL

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1419	355	329	1908	0.744	1414	1280	1.5	2.8	0.120	A
B - A47 (W)	1540	385	216	2404	0.641	1538	1526	1.1	1.8	0.069	A
C - Leicester Road (N)	470	118	1140	1287	0.365	469	614	0.4	0.6	0.073	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1419	355	329	1907	0.744	1419	1283	2.8	2.9	0.123	A
B - A47 (W)	1540	385	217	2403	0.641	1540	1531	1.8	1.8	0.070	A
C - Leicester Road (N)	470	118	1142	1286	0.365	470	615	0.6	0.6	0.074	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	1159	290	269	1944	0.596	1164	1050	2.9	1.5	0.078	A
B - A47 (W)	1258	314	178	2429	0.518	1260	1256	1.8	1.1	0.051	A
C - Leicester Road (N)	384	96	934	1399	0.274	385	504	0.6	0.4	0.059	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (min)	Unsignalised level of service
A - A47 (E)	970	243	225	1971	0.492	972	878	1.5	1.0	0.060	A
B - A47 (W)	1053	263	149	2448	0.430	1055	1049	1.1	0.8	0.043	A
C - Leicester Road (N)	321	80	782	1481	0.217	322	421	0.4	0.3	0.052	A

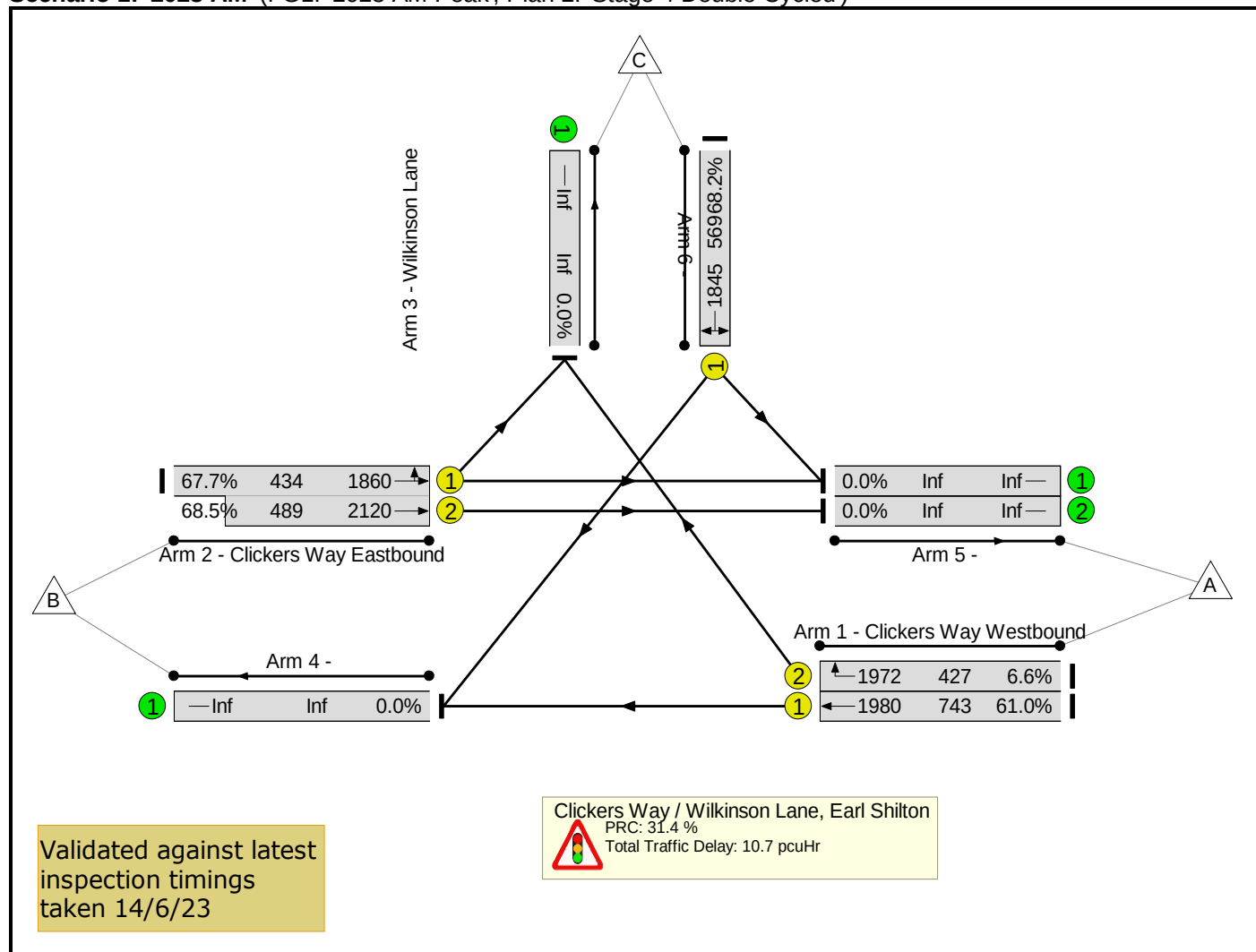
Basic Results Summary

Basic Results Summary

User and Project Details

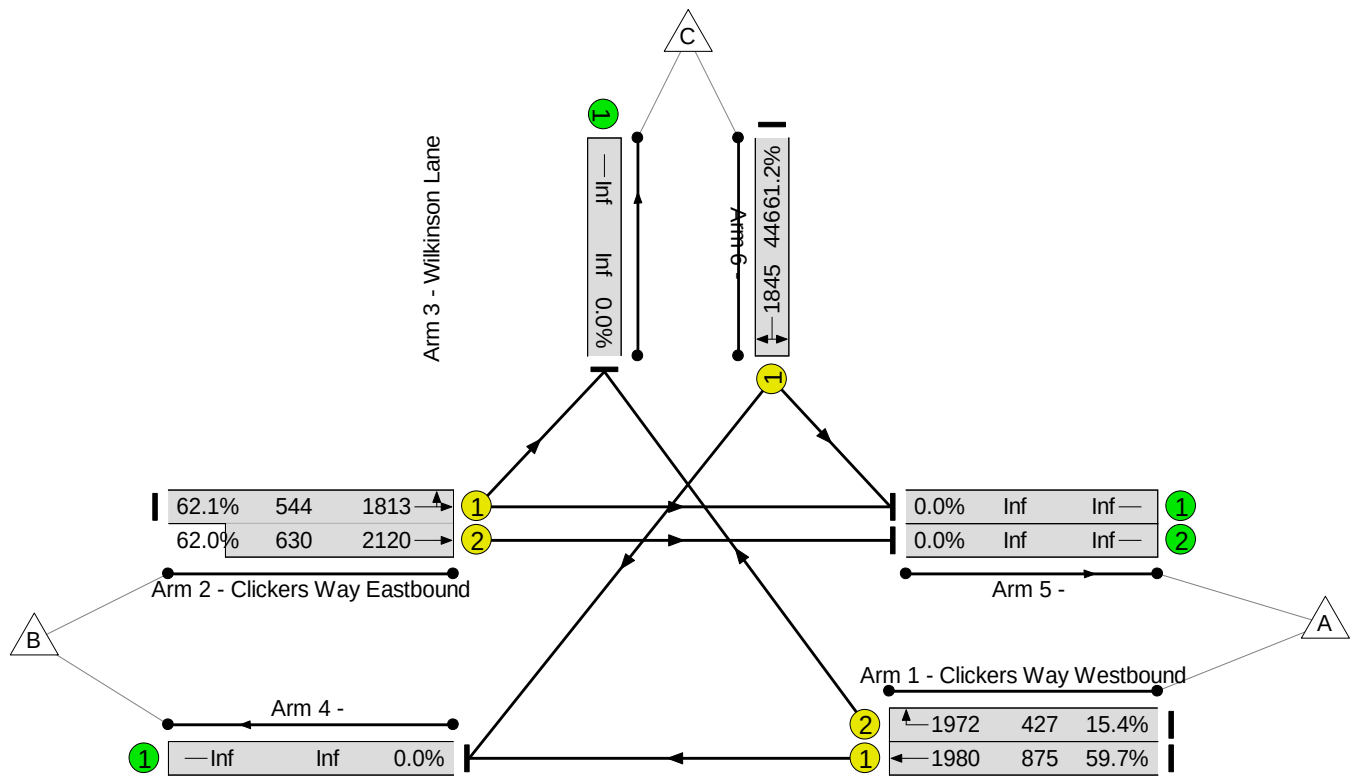
Project:	
Title:	Clickers Way / Wilkinson Lane, Earl Shilton
Location:	
Model Assumptions:	The model was supplied to WSP by LCC and WSP has used the same model and then updated the Traffic Flows.
Additional detail:	
File name:	F.A47 Clickers Way_Wilkinson Lane LCC Model.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2023 AM' (FG1: '2023 AM Peak', Plan 2: 'Stage 4 Double Cycled')



Network Results

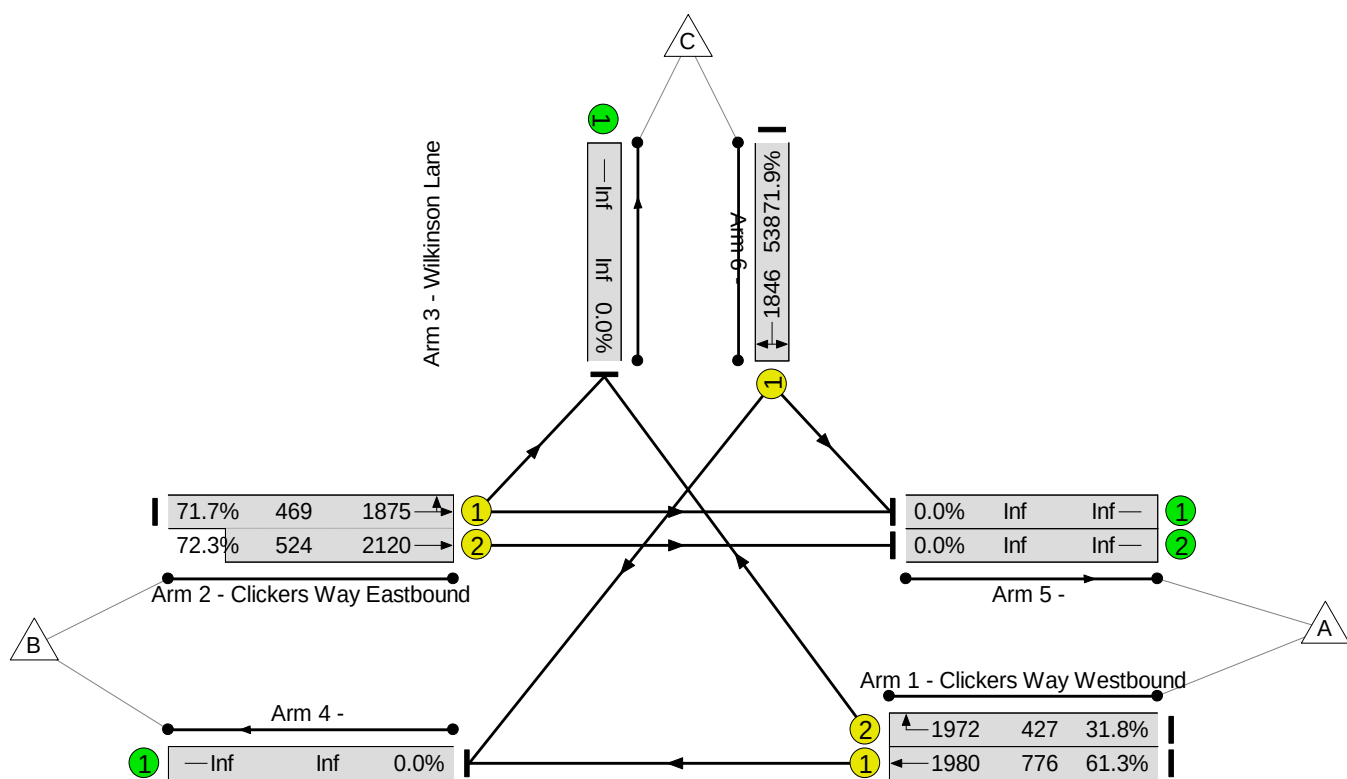
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	68.5%	0	0	0	10.7	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	68.5%	0	0	0	10.7	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	43	-	453	1980	743	61.0%	-	-	-	2.8	22.0	8.1
1/2	Clickers Way Westbound Right	U	C		2	24	-	28	1972	427	6.6%	-	-	-	0.2	23.4	0.4
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	26	-	629	1860:2120	434+489	67.7 : 68.5%	-	-	-	4.7	27.1	6.4
3/1	Wilkinson Lane Right Left	U	D		2	35	-	388	1845	569	68.2%	-	-	-	3.0	28.2	7.3
C1		PRC for Signalled Lanes (%):		31.4		Total Delay for Signalled Lanes (pcuHr):		10.72		Cycle Time (s):		120					
		PRC Over All Lanes (%):		31.4		Total Delay Over All Lanes(pcuHr):		10.72									



Validated against latest
inspection timings
taken 14/6/23

Network Results

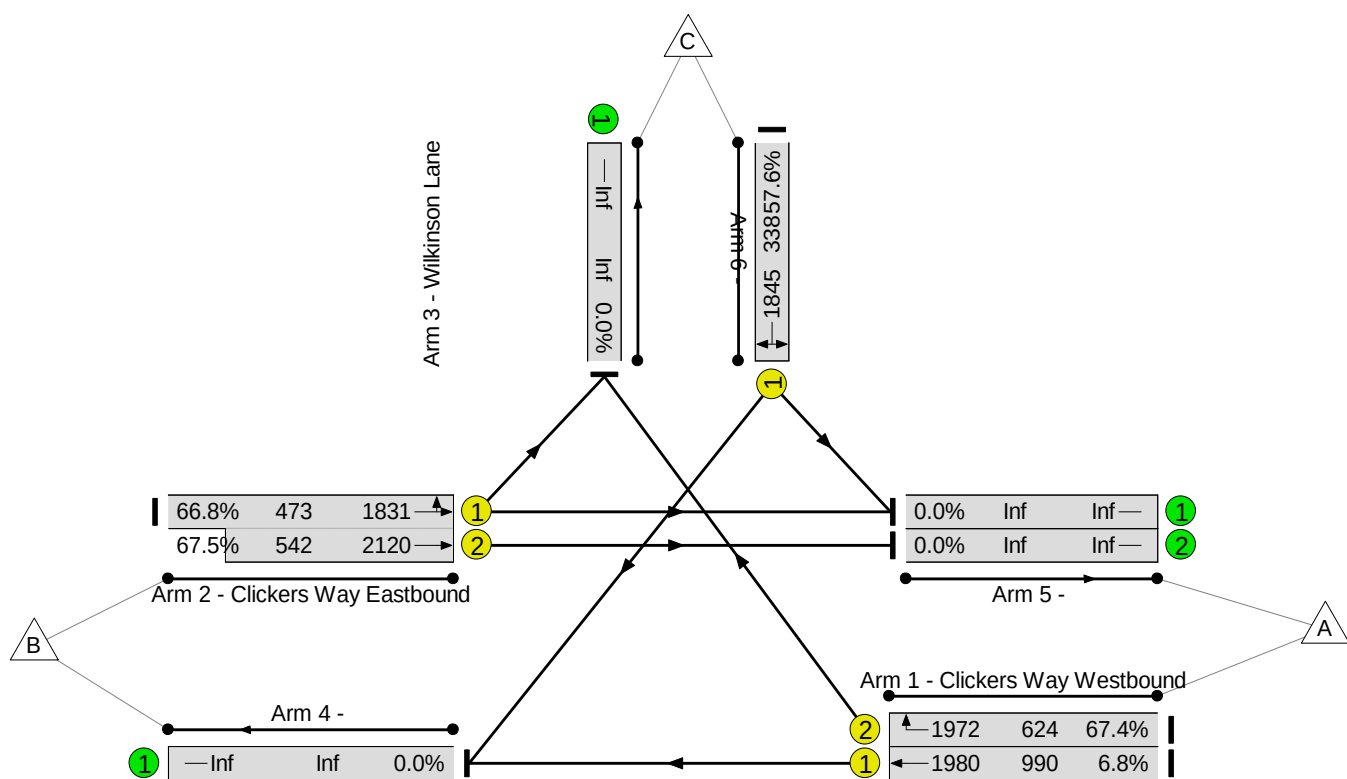
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	62.1%	0	0	0	9.9	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	62.1%	0	0	0	9.9	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	51	-	522	1980	875	59.7%	-	-	-	2.6	18.1	8.3
1/2	Clickers Way Westbound Right	U	C		2	24	-	66	1972	427	15.4%	-	-	-	0.4	24.2	1.0
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	34	-	729	1813:2120	544+630	62.1 : 62.0%	-	-	-	4.5	22.2	6.9
3/1	Wilkinson Lane Right Left	U	D		2	27	-	273	1845	446	61.2%	-	-	-	2.3	30.6	4.8
C1 PRC for Signalled Lanes (%): 44.8 Total Delay for Signalled Lanes (pcuHr): 9.89 Cycle Time (s): 120 PRC Over All Lanes (%): 44.8 Total Delay Over All Lanes(pcuHr): 9.89																	

Scenario 3: '2036 DM AM' (FG3: '2036 DM AM Peak', Plan 2: 'Stage 4 Double Cycled')

Validated against latest
inspection timings
taken 14/6/23

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	72.3%	0	0	0	12.4	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	72.3%	0	0	0	12.4	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	45	-	475	1980	776	61.3%	-	-	-	2.8	20.9	8.0
1/2	Clickers Way Westbound Right	U	C		2	24	-	136	1972	427	31.8%	-	-	-	1.0	26.0	2.1
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	28	-	715	1875:2120	469+524	71.7 : 72.3%	-	-	-	5.4	27.1	7.5
3/1	Wilkinson Lane Right Left	U	D		2	33	-	387	1846	538	71.9%	-	-	-	3.3	30.9	7.5
C1				PRC for Signalled Lanes (%):		24.5		Total Delay for Signalled Lanes (pcuHr):		12.45		Cycle Time (s):		120			
				PRC Over All Lanes (%):		24.5		Total Delay Over All Lanes(pcuHr):		12.45							

Scenario 4: '2036 DM PM' (FG4: '2036 DM PM Peak', Plan 2: 'Stage 4 Double Cycled')

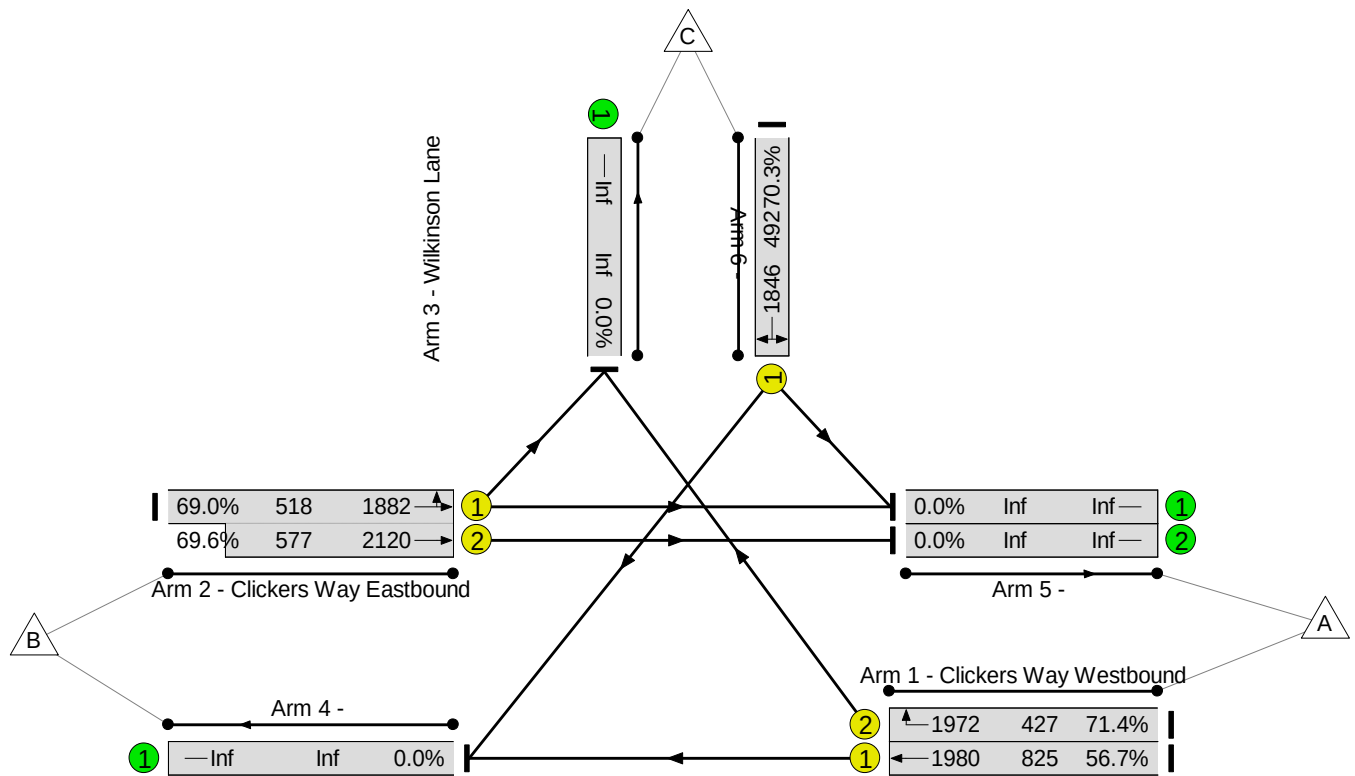
Validated against latest
inspection timings
taken 14/6/23

Clickers Way / Wilkinson Lane, Earl Shilton
PRC: 33.3 %
Total Traffic Delay: 10.0 pcuHr



Network Results

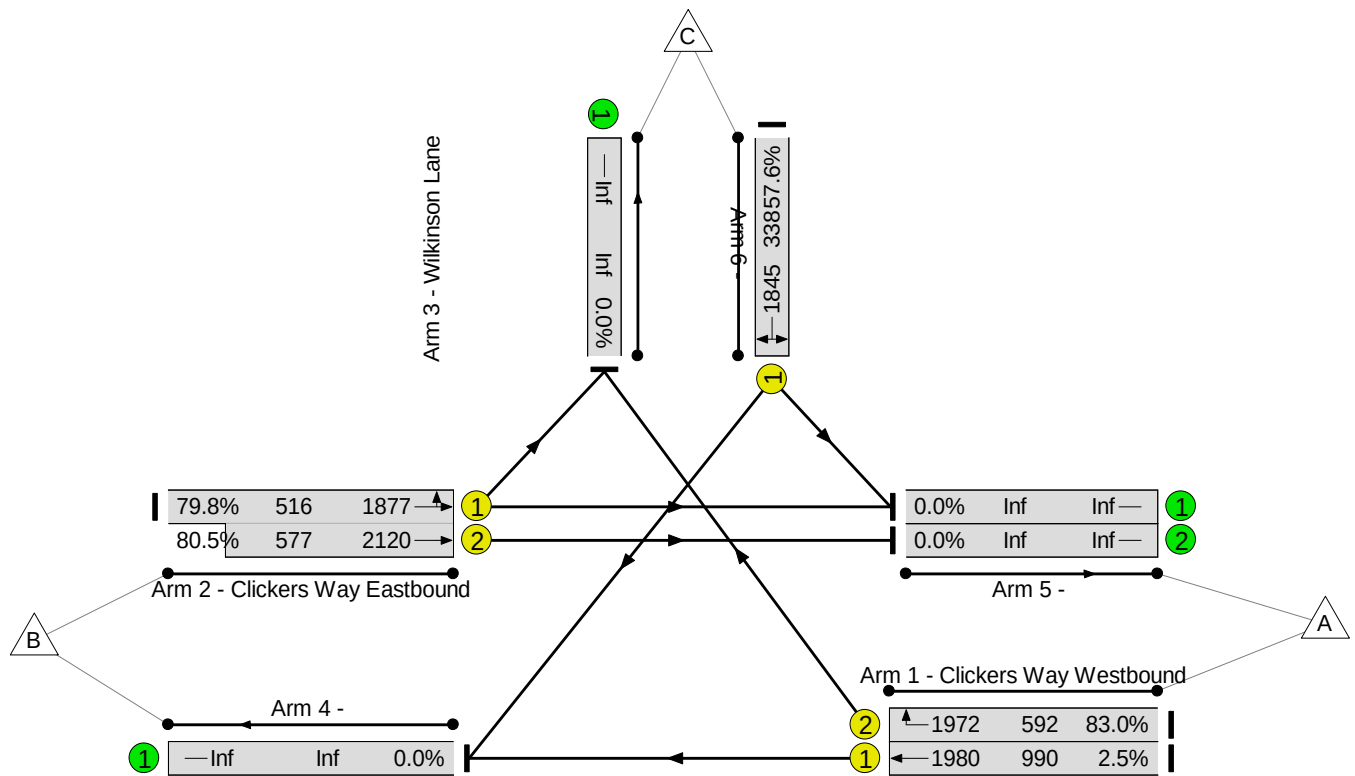
[illegible]

Scenario 5: '2036 DS AM' (FG5: '2036 DS AM Peak', Plan 2: 'Stage 4 Double Cycled')

Validated against latest
inspection timings
taken 14/6/23

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	71.4%	0	0	0	13.8	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	71.4%	0	0	0	13.8	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	48	-	468	1980	825	56.7%	-	-	-	2.4	18.8	7.5
1/2	Clickers Way Westbound Right	U	C		2	24	-	305	1972	427	71.4%	-	-	-	3.1	36.2	6.0
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	31	-	759	1882:2120	518+577	69.0 : 69.6%	-	-	-	5.3	24.9	7.5
3/1	Wilkinson Lane Right Left	U	D		2	30	-	346	1846	492	70.3%	-	-	-	3.1	32.0	6.5
C1				PRC for Signalled Lanes (%):			26.1	Total Delay for Signalled Lanes (pcuHr):				13.84	Cycle Time (s): 120				
				PRC Over All Lanes (%):			26.1	Total Delay Over All Lanes(pcuHr):				13.84					



Validated against latest
inspection timings
taken 14/6/23

Clickers Way / Wilkinson Lane, Earl Shilton
PRC: 8.4 %
Total Traffic Delay: 13.9 pcuHr



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	83.0%	0	0	0	13.9	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	83.0%	0	0	0	13.9	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	58	-	25	1980	990	2.5%	-	-	-	0.1	10.1	0.3
1/2	Clickers Way Westbound Right	U	C		2	34	-	491	1972	592	83.0%	-	-	-	5.0	36.7	10.1
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	31	-	877	1877:2120	516+577	79.8 : 80.5%	-	-	-	6.9	28.4	9.4
3/1	Wilkinson Lane Right Left	U	D		2	20	-	195	1845	338	57.6%	-	-	-	1.9	34.8	3.7
C1 PRC for Signalled Lanes (%): 8.4 Total Delay for Signalled Lanes (pcuHr): 13.88 Cycle Time (s): 120 PRC Over All Lanes (%): 8.4 Total Delay Over All Lanes(pcuHr): 13.88																	

Basic Results Summary

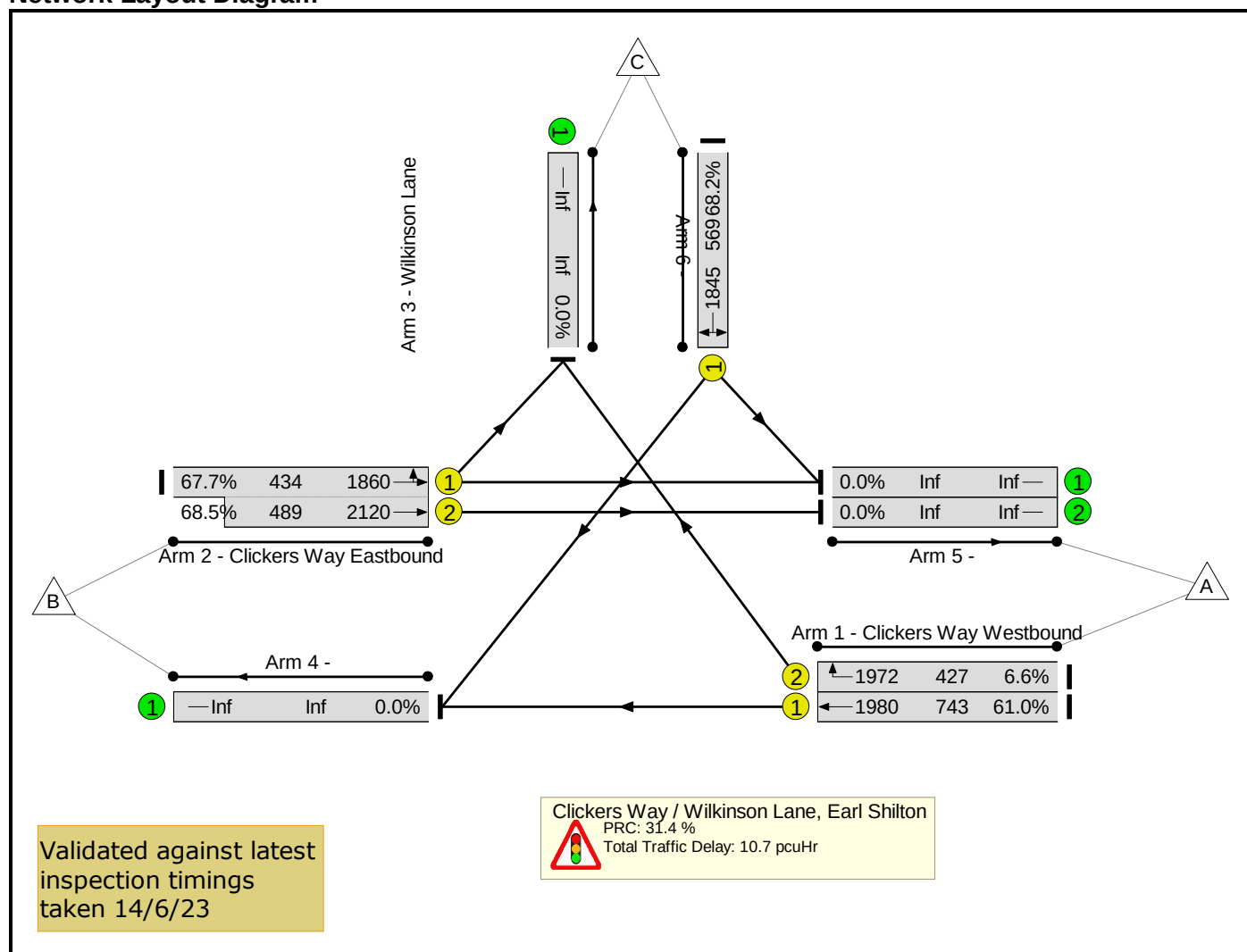
Basic Results Summary

User and Project Details

Project:	
Title:	Clickers Way / Wilkinson Lane, Earl Shilton
Location:	
Model Assumptions:	The model was supplied to WSP by LCC and WSP has used the same model and then updated the Traffic Flows.
Additional detail:	
File name:	F.A47 Clickers Way_Wilkinson Lane LCC Model.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2023 AM' (FG1: '2023 AM Peak', Plan 2: 'Stage 4 Double Cycled')

Network Layout Diagram

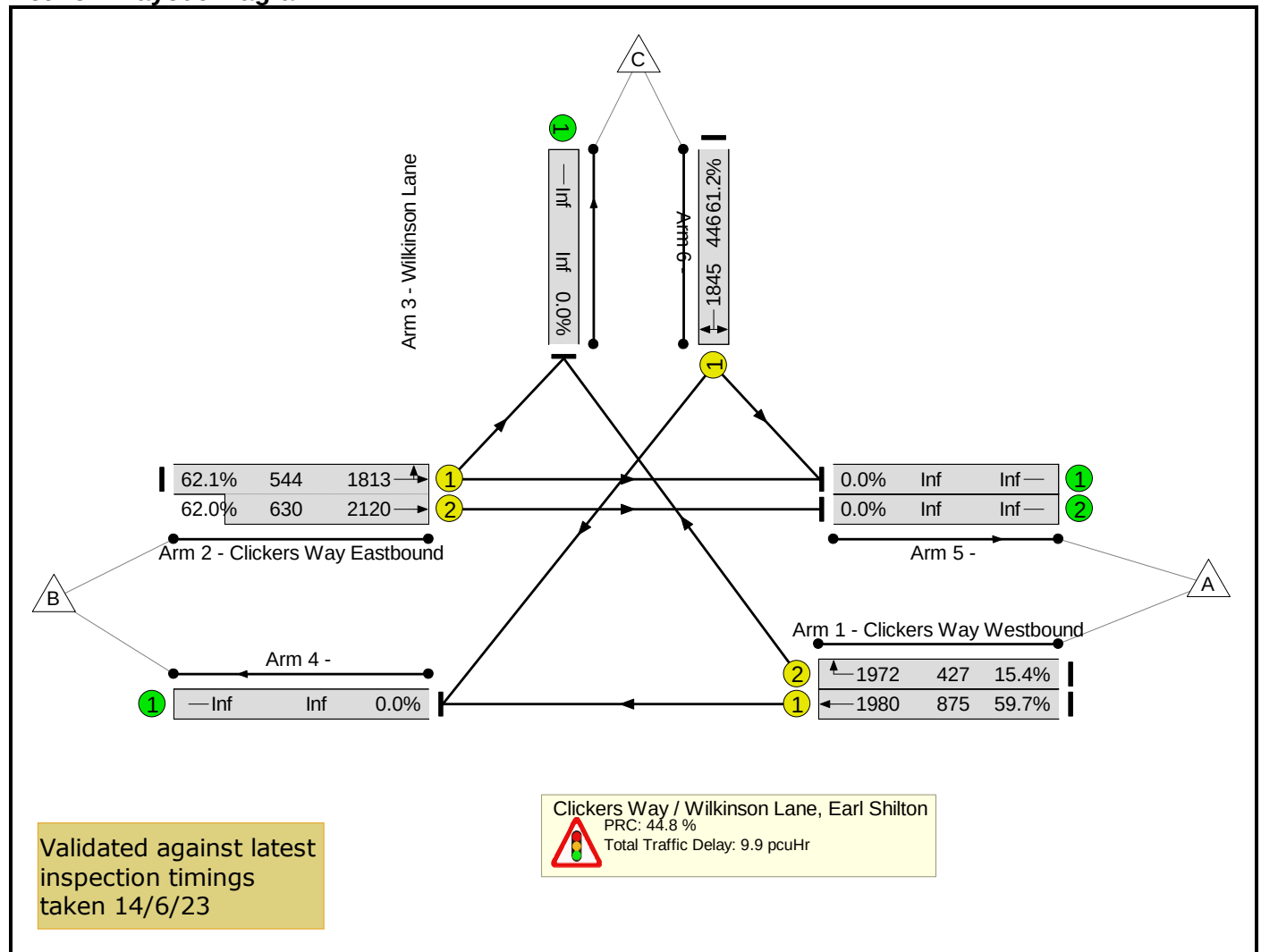


Basic Results Summary

Network Results

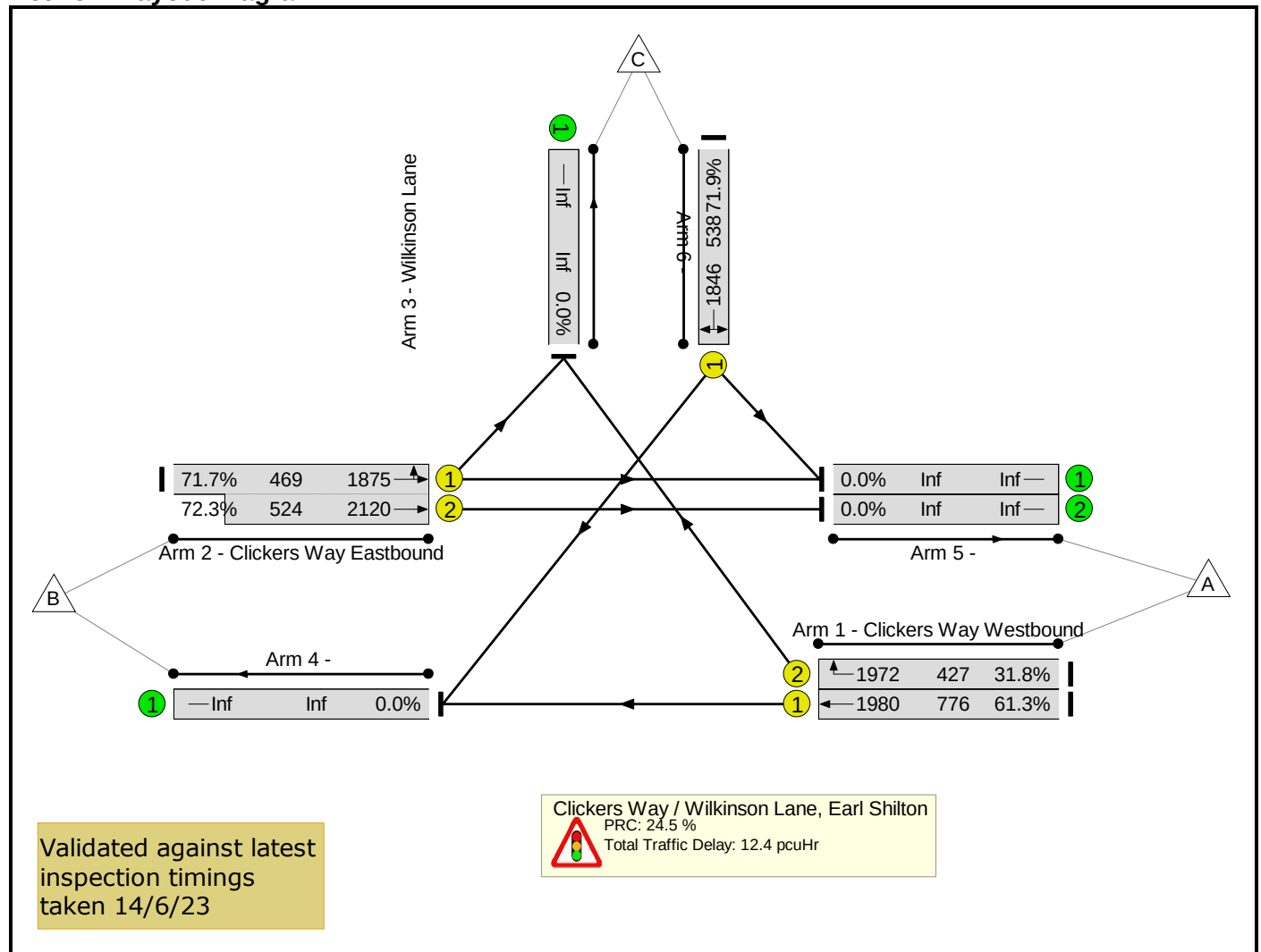
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	68.5%	0	0	0	10.7	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	68.5%	0	0	0	10.7	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	43	-	453	1980	743	61.0%	-	-	-	2.8	22.0	8.1
1/2	Clickers Way Westbound Right	U	C		2	24	-	28	1972	427	6.6%	-	-	-	0.2	23.4	0.4
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	26	-	629	1860:2120	434+489	67.7 : 68.5%	-	-	-	4.7	27.1	6.4
3/1	Wilkinson Lane Right Left	U	D		2	35	-	388	1845	569	68.2%	-	-	-	3.0	28.2	7.3
C1				PRC for Signalled Lanes (%):		31.4	PRC Over All Lanes (%):		31.4	Total Delay for Signalled Lanes (pcuHr):		10.72	Total Delay Over All Lanes(pcuHr):		10.72	Cycle Time (s): 120	

Network Layout Diagram



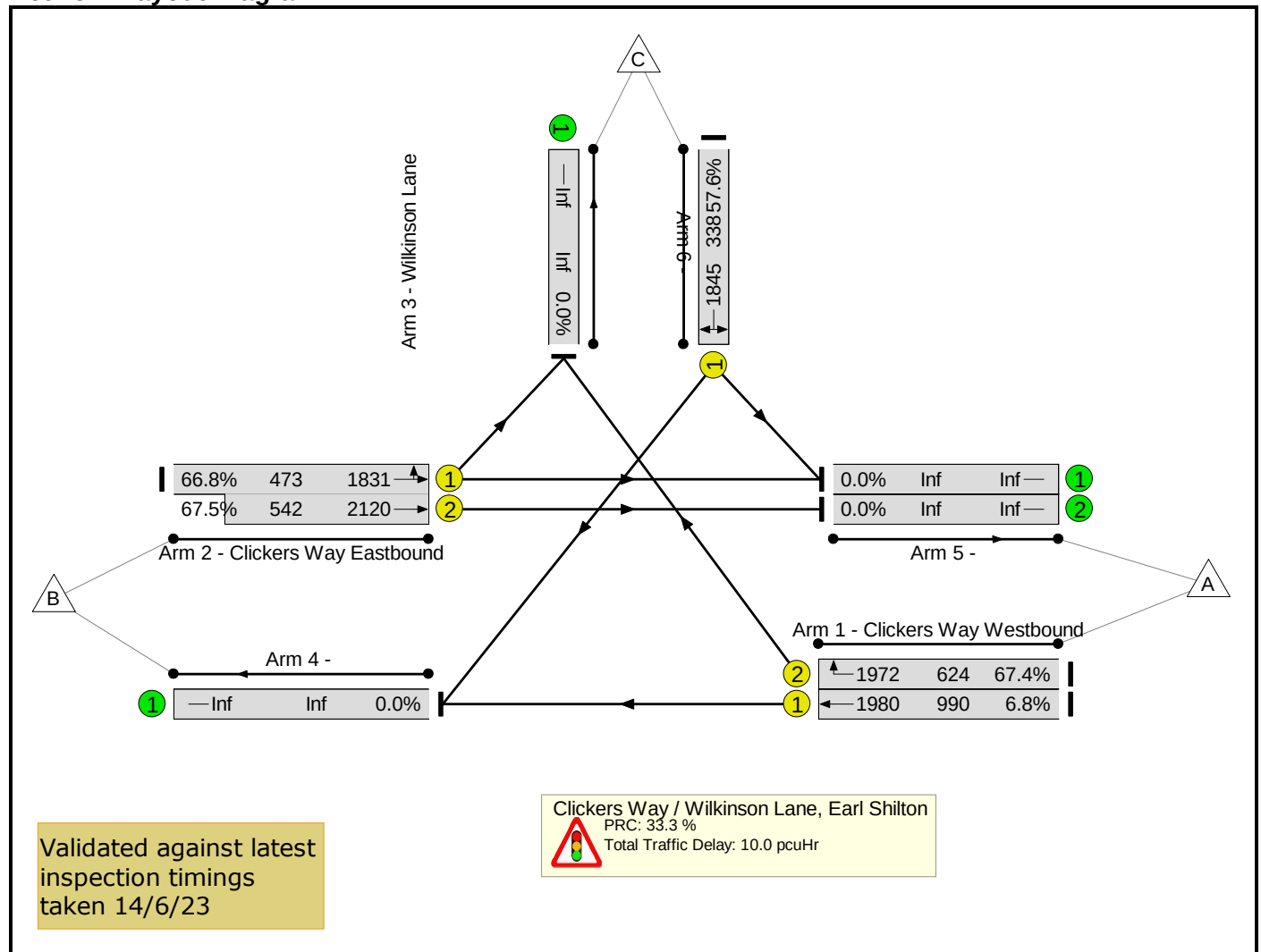
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	62.1%	0	0	0	9.9	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	62.1%	0	0	0	9.9	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	51	-	522	1980	875	59.7%	-	-	-	2.6	18.1	8.3
1/2	Clickers Way Westbound Right	U	C		2	24	-	66	1972	427	15.4%	-	-	-	0.4	24.2	1.0
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	34	-	729	1813:2120	544+630	62.1 : 62.0%	-	-	-	4.5	22.2	6.9
3/1	Wilkinson Lane Right Left	U	D		2	27	-	273	1845	446	61.2%	-	-	-	2.3	30.6	4.8
C1 PRC for Signalled Lanes (%): 44.8 Total Delay for Signalled Lanes (pcuHr): 9.89 Cycle Time (s): 120 PRC Over All Lanes (%): 44.8 Total Delay Over All Lanes(pcuHr): 9.89																	

Network Layout Diagram

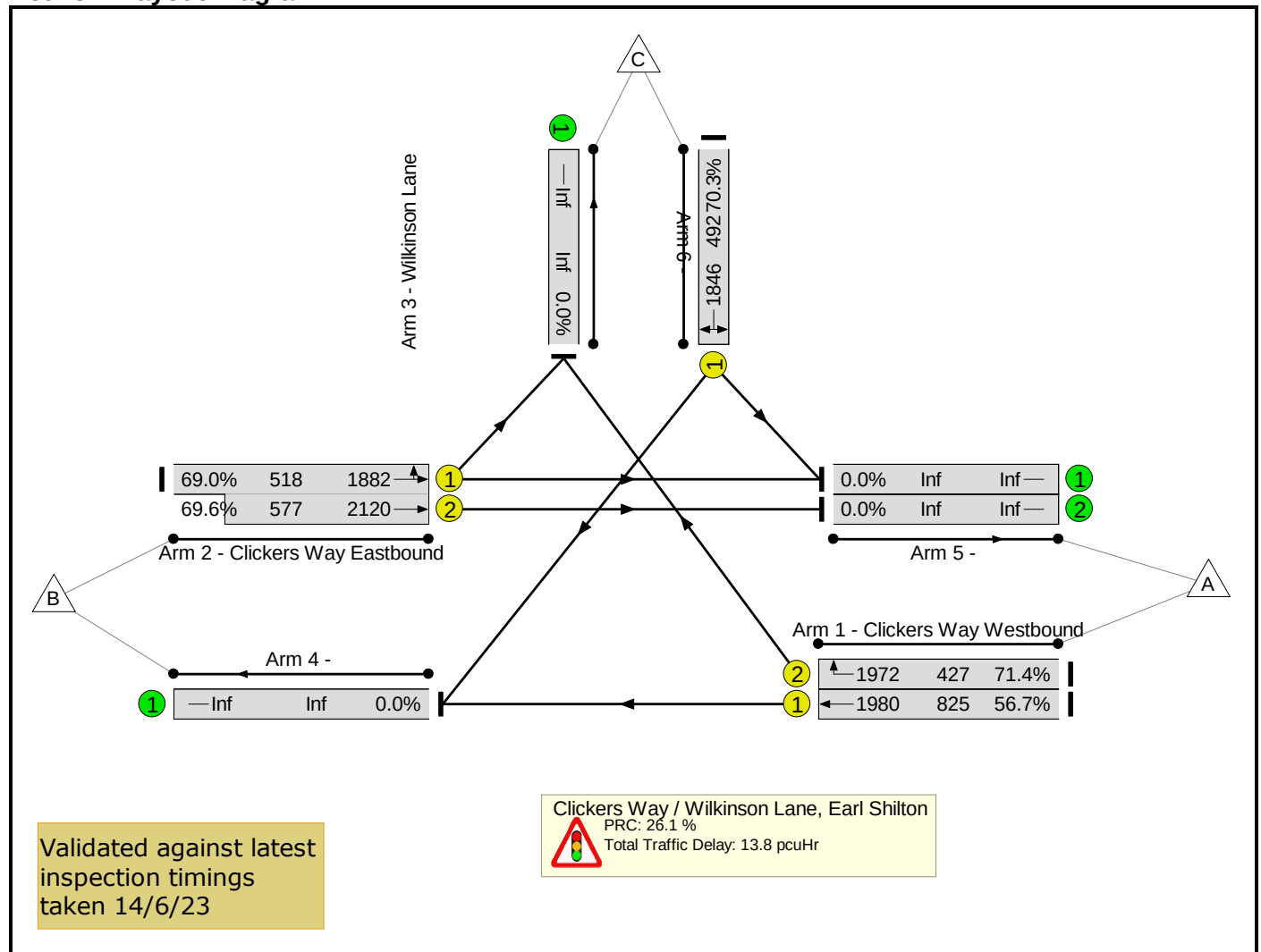
Network Results

Network Results																	
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	72.3%	0	0	0	12.4	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	72.3%	0	0	0	12.4	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	45	-	475	1980	776	61.3%	-	-	-	2.8	20.9	8.0
1/2	Clickers Way Westbound Right	U	C		2	24	-	136	1972	427	31.8%	-	-	-	1.0	26.0	2.1
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	28	-	715	1875:2120	469+524	71.7 : 72.3%	-	-	-	5.4	27.1	7.5
3/1	Wilkinson Lane Right Left	U	D		2	33	-	387	1846	538	71.9%	-	-	-	3.3	30.9	7.5
C1		PRC for Signalled Lanes (%):		24.5		Total Delay for Signalled Lanes (pcuHr):		12.45		Cycle Time (s):		120					
		PRC Over All Lanes (%):		24.5		Total Delay Over All Lanes(pcuHr):		12.45									

Network Layout Diagram

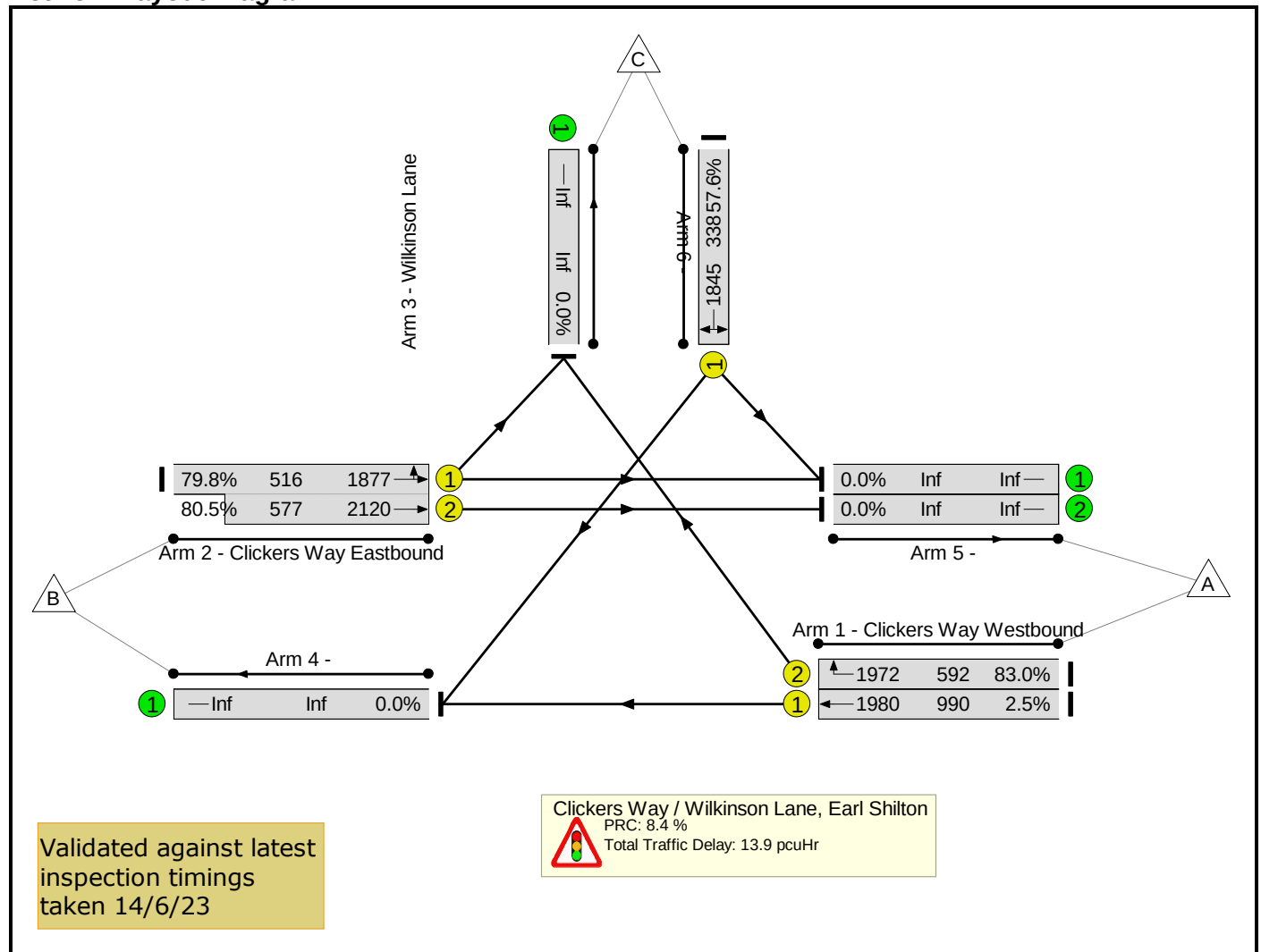
Network Results

[illegible]

Network Layout Diagram

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	71.4%	0	0	0	13.8	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	71.4%	0	0	0	13.8	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	48	-	468	1980	825	56.7%	-	-	-	2.4	18.8	7.5
1/2	Clickers Way Westbound Right	U	C		2	24	-	305	1972	427	71.4%	-	-	-	3.1	36.2	6.0
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	31	-	759	1882:2120	518+577	69.0 : 69.6%	-	-	-	5.3	24.9	7.5
3/1	Wilkinson Lane Right Left	U	D		2	30	-	346	1846	492	70.3%	-	-	-	3.1	32.0	6.5
C1				PRC for Signalled Lanes (%):			26.1	Total Delay for Signalled Lanes (pcuHr):				13.84	Cycle Time (s): 120				
				PRC Over All Lanes (%):			26.1	Total Delay Over All Lanes(pcuHr):				13.84					

Network Layout Diagram

Network Results

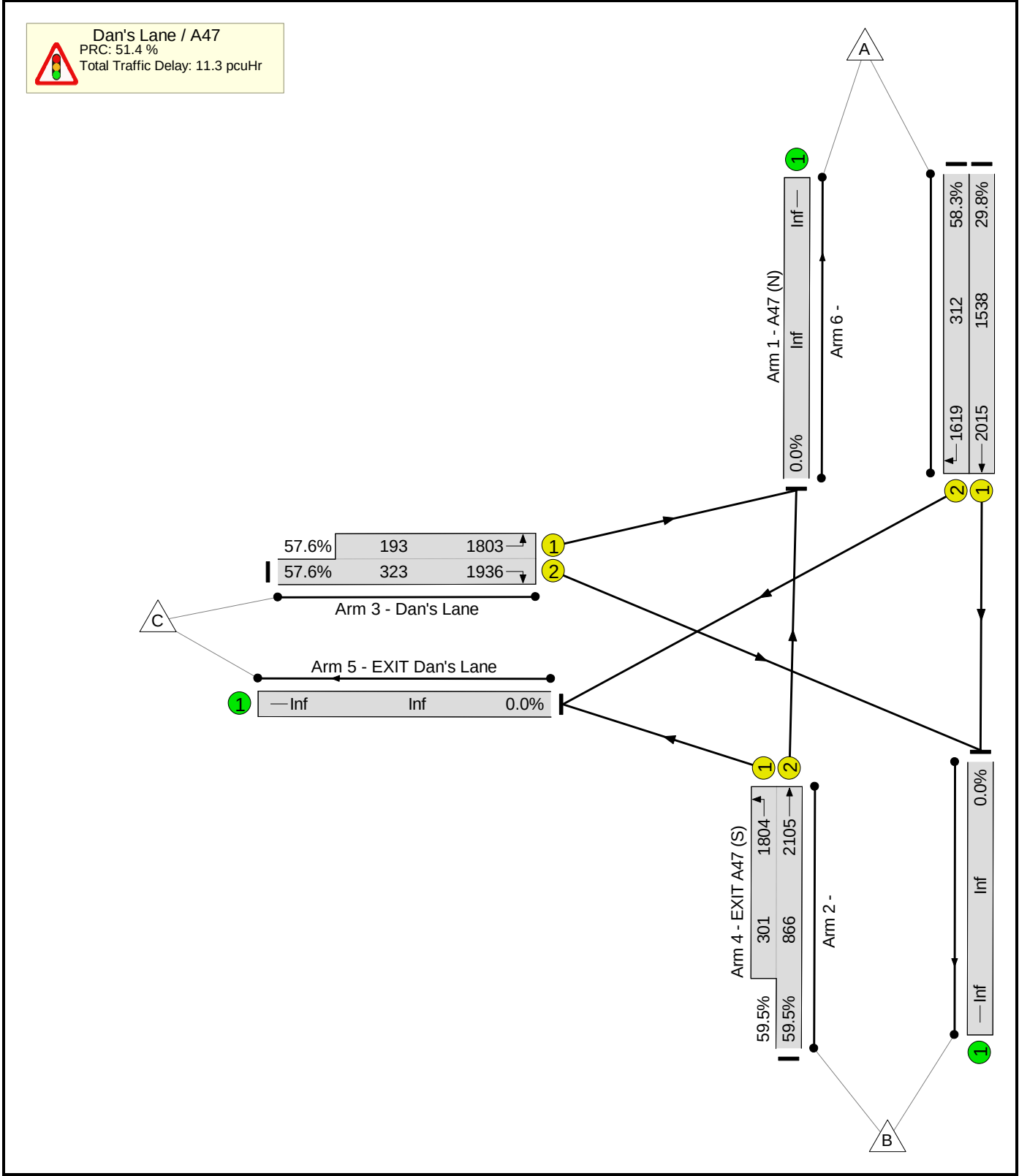
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	83.0%	0	0	0	13.9	-	-
Clickers Way / Wilkinson Lane, Earl Shilton	-	-	-		-	-	-	-	-	-	83.0%	0	0	0	13.9	-	-
1/1	Clickers Way Westbound Ahead	U	A		2	58	-	25	1980	990	2.5%	-	-	-	0.1	10.1	0.3
1/2	Clickers Way Westbound Right	U	C		2	34	-	491	1972	592	83.0%	-	-	-	5.0	36.7	10.1
2/1+2/2	Clickers Way Eastbound Ahead Left	U	B		2	31	-	877	1877:2120	516+577	79.8 : 80.5%	-	-	-	6.9	28.4	9.4
3/1	Wilkinson Lane Right Left	U	D		2	20	-	195	1845	338	57.6%	-	-	-	1.9	34.8	3.7
C1 PRC for Signalled Lanes (%): 8.4 Total Delay for Signalled Lanes (pcuHr): 13.88 Cycle Time (s): 120 PRC Over All Lanes (%): 8.4 Total Delay Over All Lanes(pcuHr): 13.88																	

Basic Results Summary
Basic Results Summary

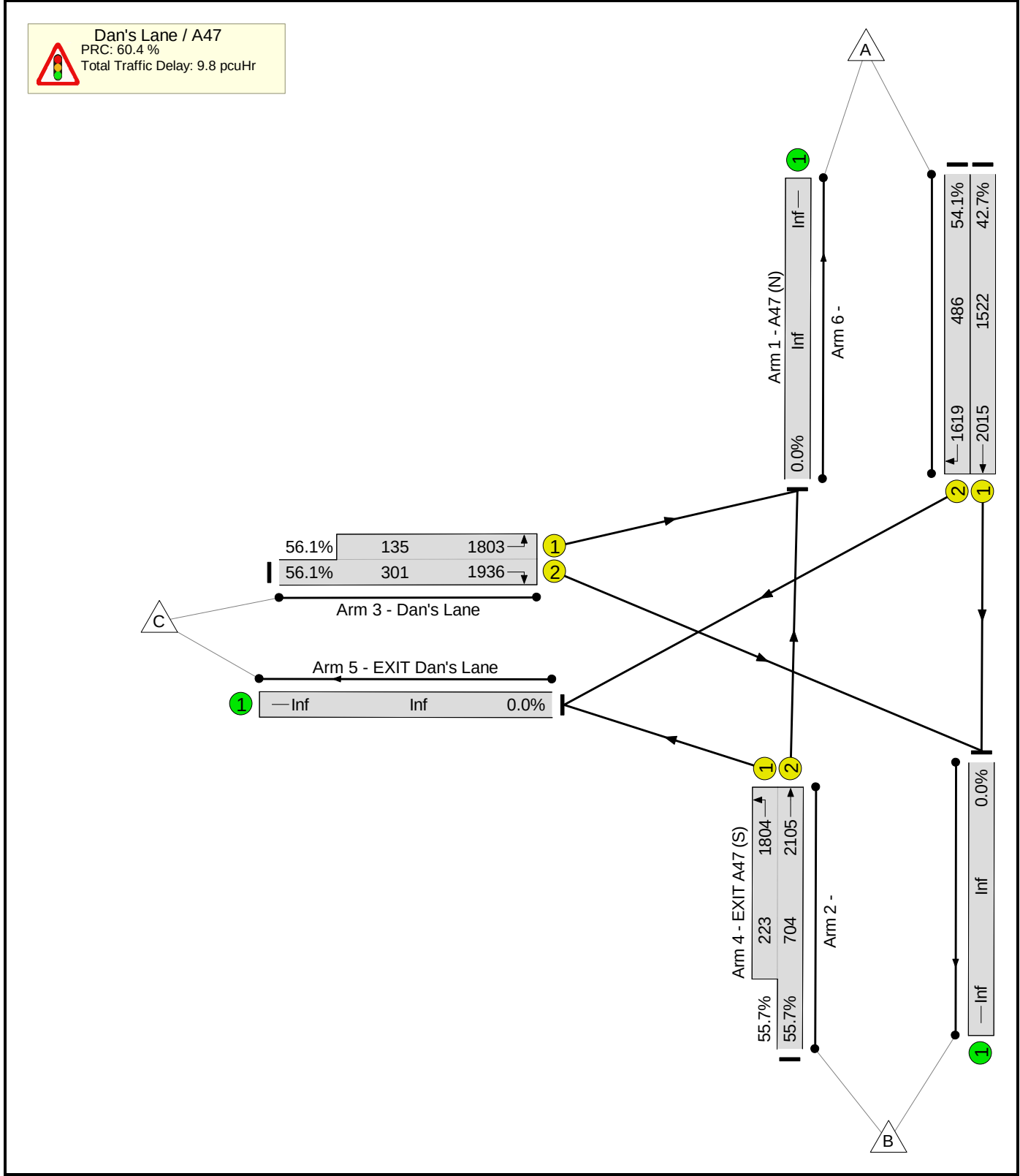
User and Project Details

Project:	Earl Shilton Junction modelling
Title:	Dan's Lane / A47 Committed scheme
Location:	
Client:	LCC
Date Started:	21-12-2023
Model Assumptions:	The model is generated from the previous TA Report (Junction model - LinSig.pdf).
Additional detail:	WSP is updated the flows on the previously committed scheme.
File name:	A47_DansLane_Committed Scheme.lsg3x
Author:	INJA05275
Company:	WSP
Address:	

Scenario 1: '2036 DM AM' (FG1: '2036 DM AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

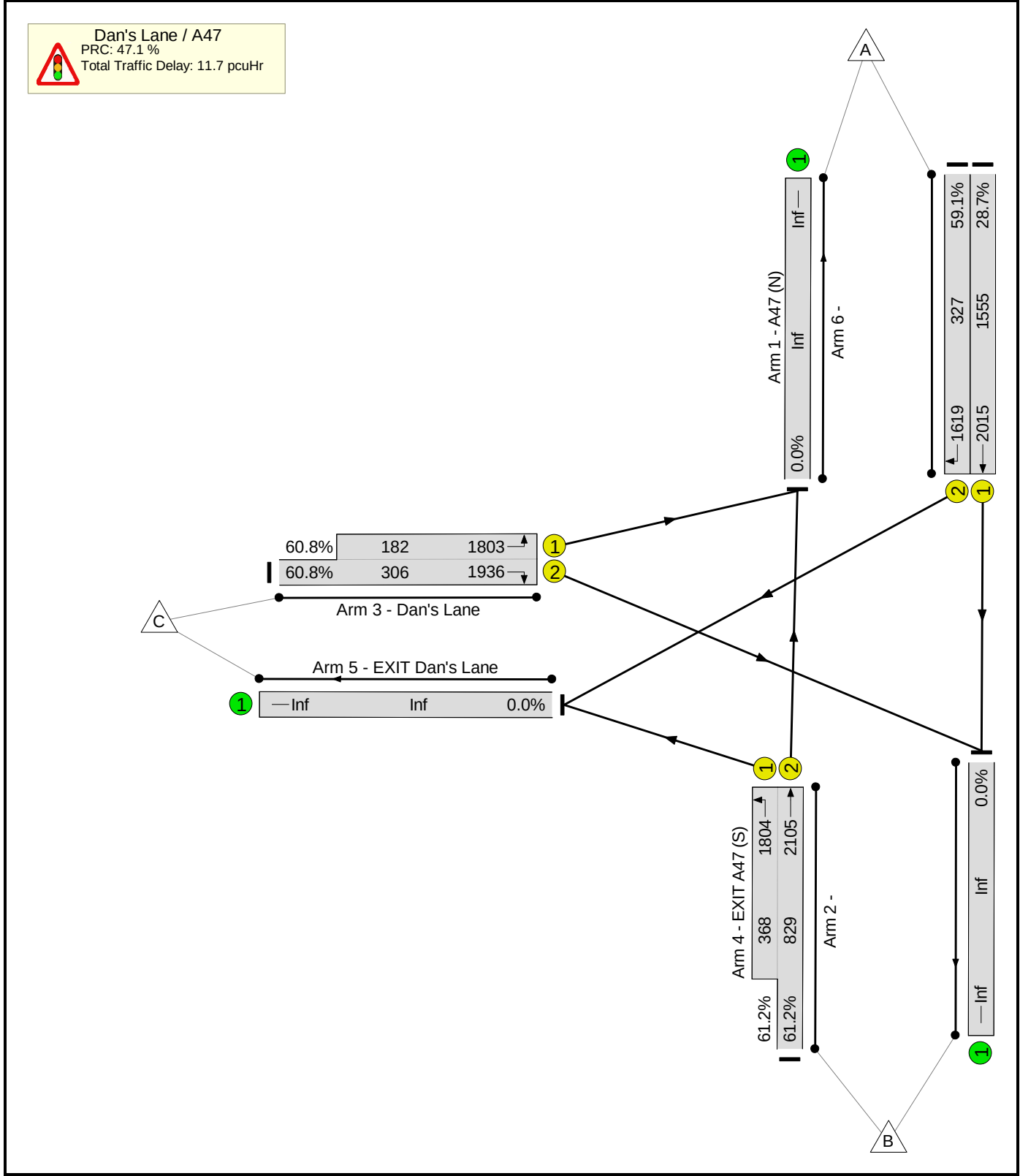


Network Results



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Dan's Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	56.1%	0	0	0	9.8	-	-
Dan's Lane / A47	-	-	-		-	-	-	-	-	-	56.1%	0	0	0	9.8	-	-
1/1	A47 (N) Ahead	U	A		1	67	-	650	2015	1522	42.7%	-	-	-	1.1	6.0	6.1
1/2	A47 (N) Right	U	B		1	26	-	263	1619	486	54.1%	-	-	-	2.5	34.4	6.1
2/2+2/1	Left Ahead	U	C		1	33	-	516	2105:1804	704+223	55.7 : 55.7%	-	-	-	3.6	25.1	8.0
3/2+3/1	Dan's Lane Right Left	U	E D		1	13:41	-	245	1936:1803	301+135	56.1 : 56.1%	-	-	-	2.6	37.7	4.5
C1 PRC for Signalled Lanes (%): 60.4 Total Delay for Signalled Lanes (pcuHr): 9.77 Cycle Time (s): 90 PRC Over All Lanes (%): 60.4 Total Delay Over All Lanes(pcuHr): 9.77																	



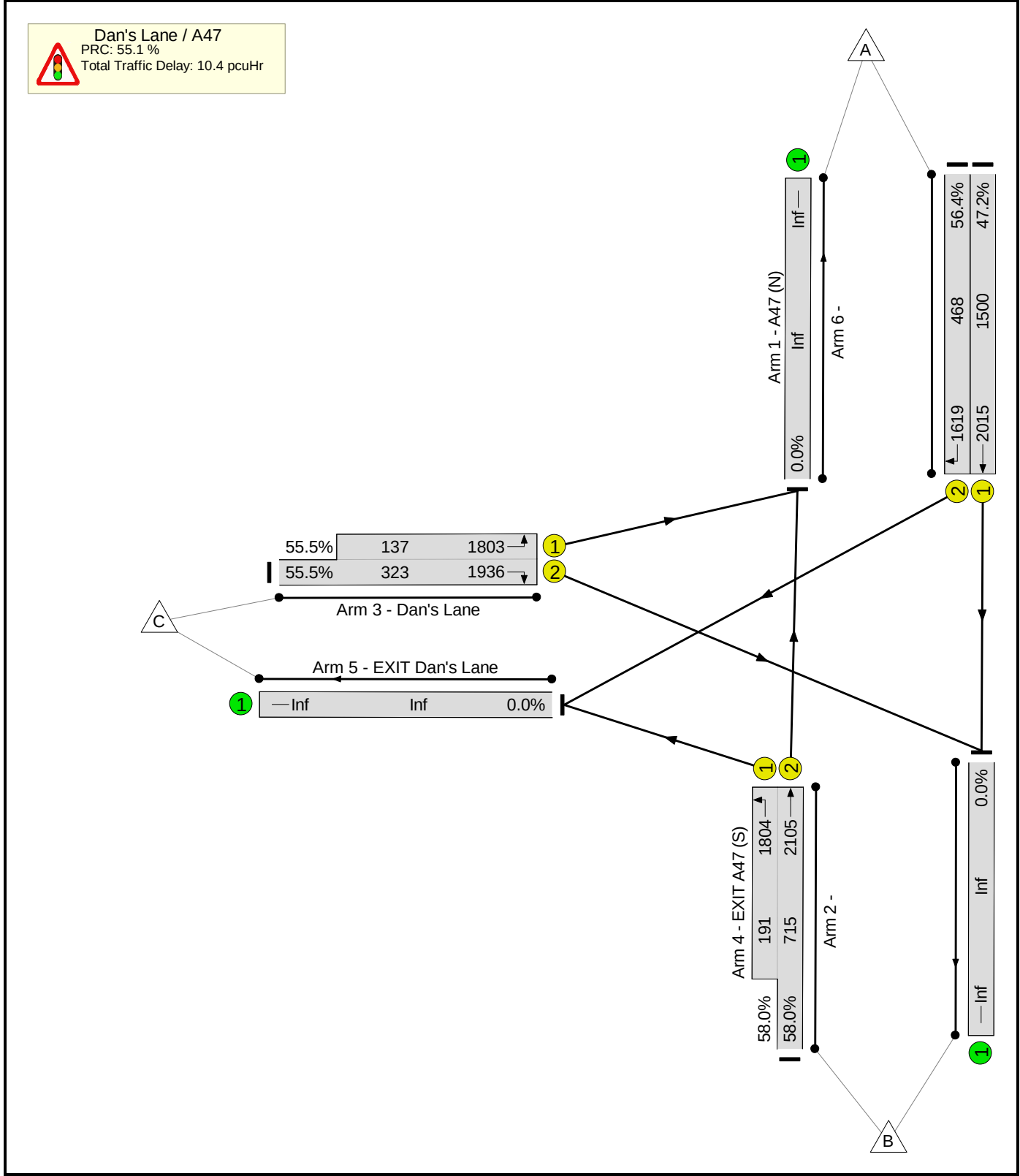
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Dan's Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	61.2%	0	0	0	11.7	-	-
Dan's Lane / A47	-	-	-		-	-	-	-	-	-	61.2%	0	0	0	11.7	-	-
1/1	A47 (N) Ahead	U	A		1	87	-	446	2015	1555	28.7%	-	-	-	0.7	5.4	4.3
1/2	A47 (N) Right	U	B		1	22	-	193	1619	327	59.1%	-	-	-	2.9	54.6	6.2
2/2+2/1	Left Ahead	U	C		1	57	-	732	2105:1804	829+368	61.2 : 61.2%	-	-	-	4.3	21.2	11.1
3/2+3/1	Dan's Lane Right Left	U	E D		1	17:41	-	297	1936:1803	306+182	60.8 : 60.8%	-	-	-	3.8	46.4	6.2
C1				PRC for Signalled Lanes (%):			47.1	Total Delay for Signalled Lanes (pcuHr):				11.75	Cycle Time (s): 114				
				PRC Over All Lanes (%):			47.1	Total Delay Over All Lanes(pcuHr):				11.75					

Basic Results Summary

Scenario 4: '2036 DS PM' (FG4: '2036 DS PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Network Results

Basic Results Summary

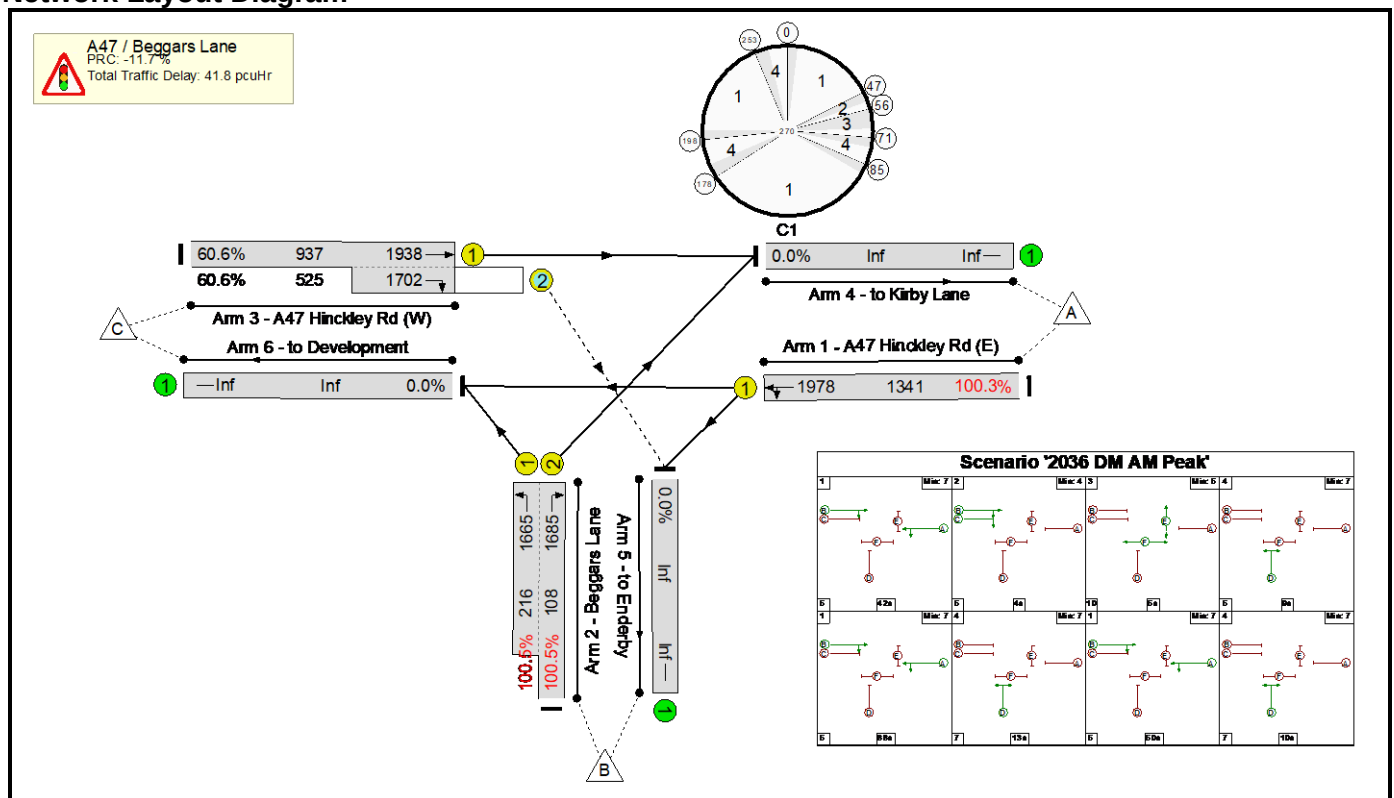
Basic Results Summary

User and Project Details

Project:	Earl Shilton Junction modelling
Title:	Beggar's Lane / A47 Committed scheme
Location:	
Client:	LCC
Date Started:	21/12/2023
Model Assumptions:	The model is generated from the previous TA Report (Junction model - LinSig.pdf). WSP is updated the flows on the previously committed scheme.
Additional detail:	
File name:	A47_BeggarsLane_Improvement Scheme.lsg3x
Author:	INCS04445
Company:	WSP
Address:	

Scenario 1: '2036 DM AM Peak' (FG1: '2036 DM AM', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



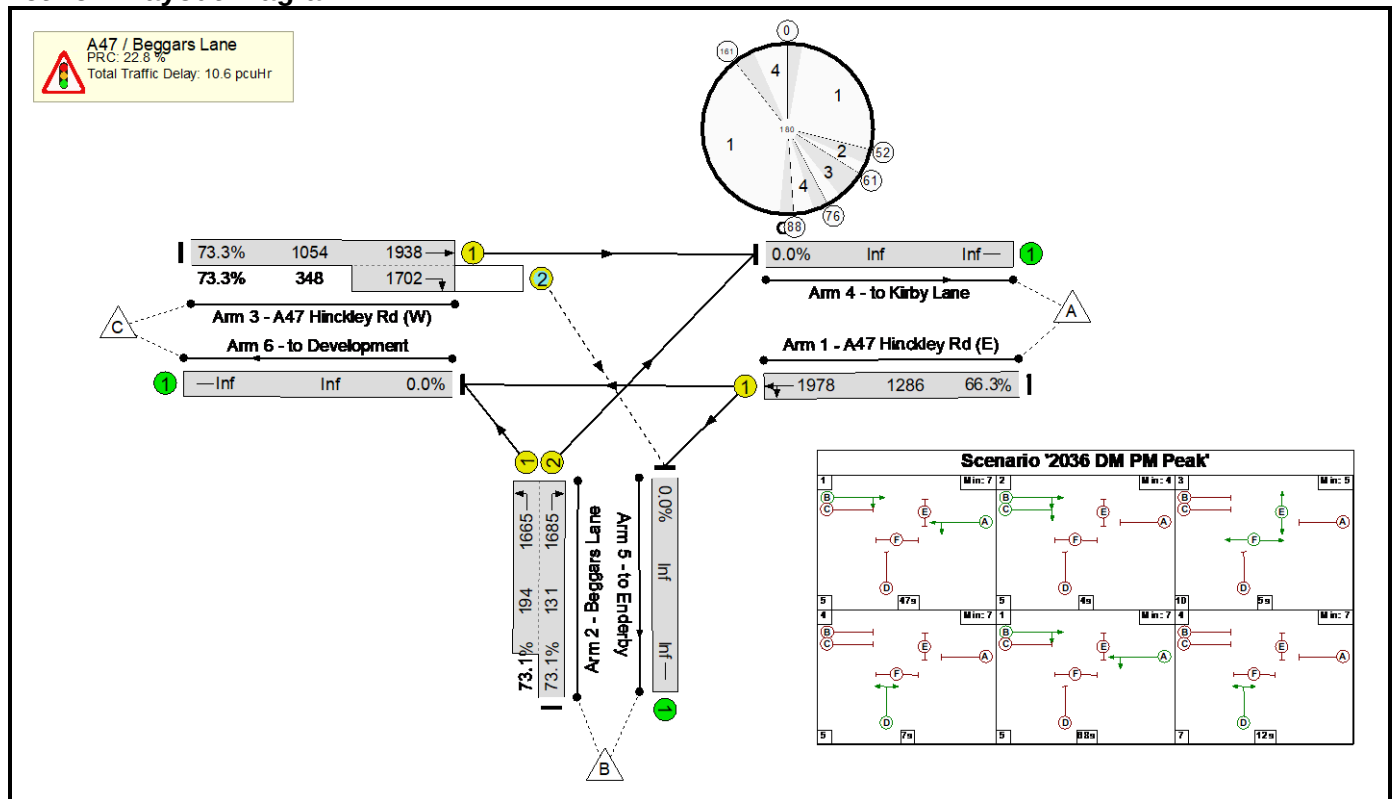
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Beggar's Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	100.5%	0	304	14	41.8	-	-
A47 / Beggars Lane	-	-	-		-	-	-	-	-	-	100.5%	0	304	14	41.8	-	-
1/1	A47 Hinckley Rd (E) Left Ahead	U	A		3	180	-	1345	1978	1341	100.3%	-	-	-	26.1	69.8	69.1
2/2+2/1	Beggars Lane Right Left	U	D		3	32	-	326	1685:1665	108+216	100.5 : 100.5%	-	-	-	13.6	150.1	16.9
3/1+3/2	A47 Hinckley Rd (W) Ahead Right	U+O	B	C	3	189	4	886	1938:1702	937+525	60.6 : 60.6%	0	304	14	2.1	8.4	9.5
C1				PRC for Signalled Lanes (%):			-11.7	Total Delay for Signalled Lanes (pcuHr):				41.76	Cycle Time (s): 270				
				PRC Over All Lanes (%):			-11.7	Total Delay Over All Lanes(pcuHr):				41.76					

Basic Results Summary

Scenario 2: '2036 DM PM Peak' (FG2: '2036 DM PM', Plan 3: 'Network Control Plan 3')

Network Layout Diagram



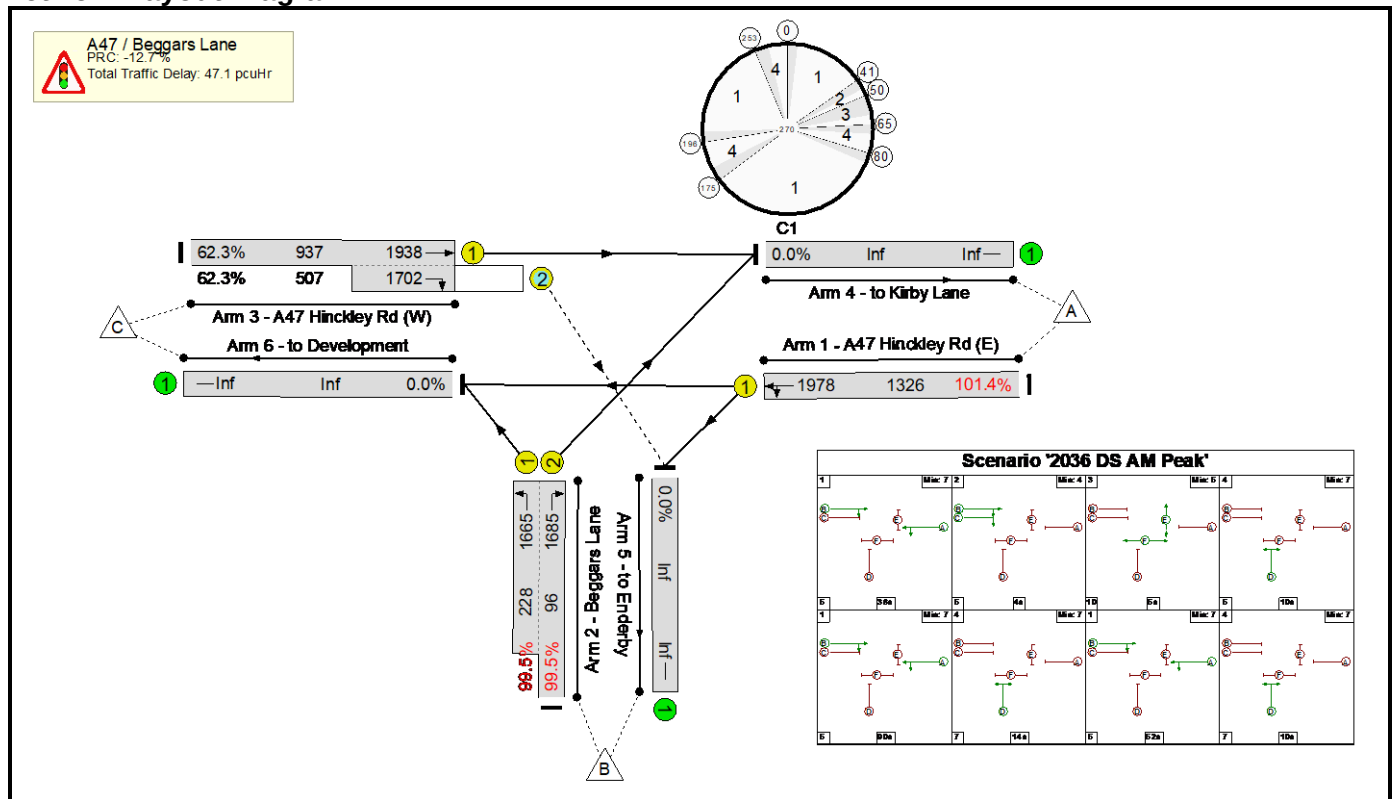
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Beggars Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	73.3%	0	244	11	10.6	-	-
	A47 / Beggars Lane	-	-		-	-	-	-	-	-	73.3%	0	244	11	10.6	-	-
1/1	A47 Hinckley Rd (E) Left Ahead	U	A		2	115	-	853	1978	1286	66.3%	-	-	-	3.4	14.5	17.6
2/2+2/1	Beggars Lane Right Left	U	D		2	19	-	238	1685:1665	131+194	73.1 : 73.1%	-	-	-	3.8	57.9	4.8
3/1+3/2	A47 Hinckley Rd (W) Ahead Right	U+O	B	C	2	124	4	1027	1938:1702	1054+348	73.3 : 73.3%	0	244	11	3.3	11.7	16.2
C1 PRC for Signalled Lanes (%): PRC Over All Lanes (%): 22.8 22.8 Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 10.62 10.62 Cycle Time (s): 180																	

Basic Results Summary

Scenario 3: '2036 DS AM Peak' (FG3: '2036 DS AM', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



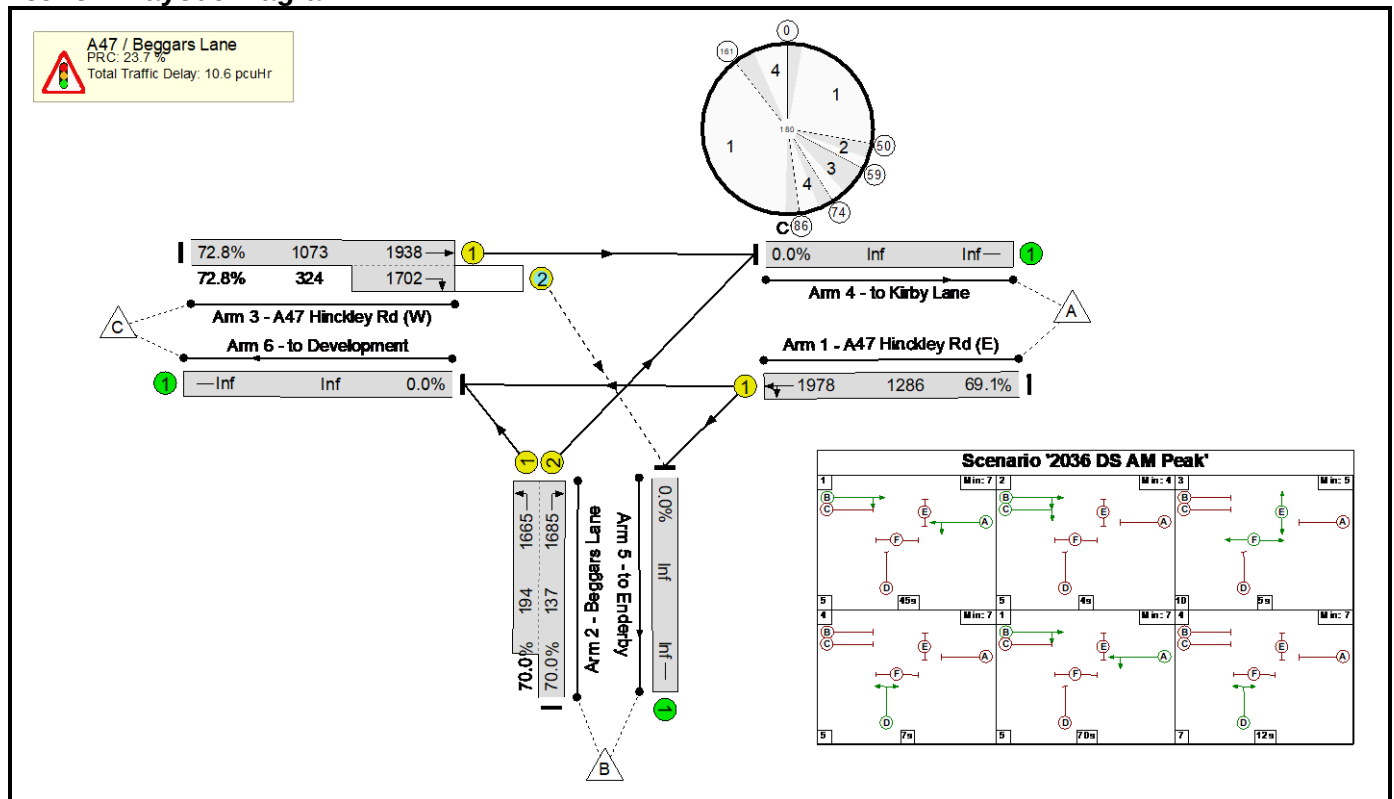
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Beggar's Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	101.4%	0	302	14	47.1	-	-
	A47 / Beggars Lane	-	-		-	-	-	-	-	-	101.4%	0	302	14	47.1	-	-
1/1	A47 Hinckley Rd (E) Left Ahead	U	A		3	178	-	1345	1978	1326	101.4%	-	-	-	32.6	87.4	76.6
2/2+2/1	Beggars Lane Right Left	U	D		3	34	-	323	1685:1665	96+228	99.5 : 99.5%	-	-	-	12.2	136.4	15.9
3/1+3/2	A47 Hinckley Rd (W) Ahead Right	U+O	B	C	3	187	4	900	1938:1702	937+507	62.3 : 62.3%	0	302	14	2.3	9.0	10.6
C1 PRC for Signalled Lanes (%): -12.7 PRC Over All Lanes (%): -12.7 Total Delay for Signalled Lanes (pcuHr): 47.12 Total Delay Over All Lanes(pcuHr): 47.12 Cycle Time (s): 270																	

Basic Results Summary

Scenario 4: '2036 DS AM Peak' (FG4: '2036 DS PM', Plan 3: 'Network Control Plan 3')

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Beggars Lane / A47 Committed scheme	-	-	-		-	-	-	-	-	-	72.8%	0	226	10	10.6	-	-
A47 / Beggars Lane	-	-	-		-	-	-	-	-	-	72.8%	0	226	10	10.6	-	-
1/1	A47 Hinckley Rd (E) Left Ahead	U	A		2	115	-	888	1978	1286	69.1%	-	-	-	3.8	15.2	18.9
2/2+2/1	Beggars Lane Right Left	U	D		2	19	-	232	1685:1665	137+194	70.0 : 70.0%	-	-	-	3.6	55.6	4.5
3/1+3/2	A47 Hinckley Rd (W) Ahead Right	U+O	B	C	2	124	4	1017	1938:1702	1073+324	72.8 : 72.8%	0	226	10	3.3	11.7	15.9
C1 PRC for Signalised Lanes (%): 23.7 Total Delay for Signalised Lanes (pcuHr): 10.65 Cycle Time (s): 180 PRC Over All Lanes (%): 23.7 Total Delay Over All Lanes(pcuHr): 10.65																	

Basic Results Summary

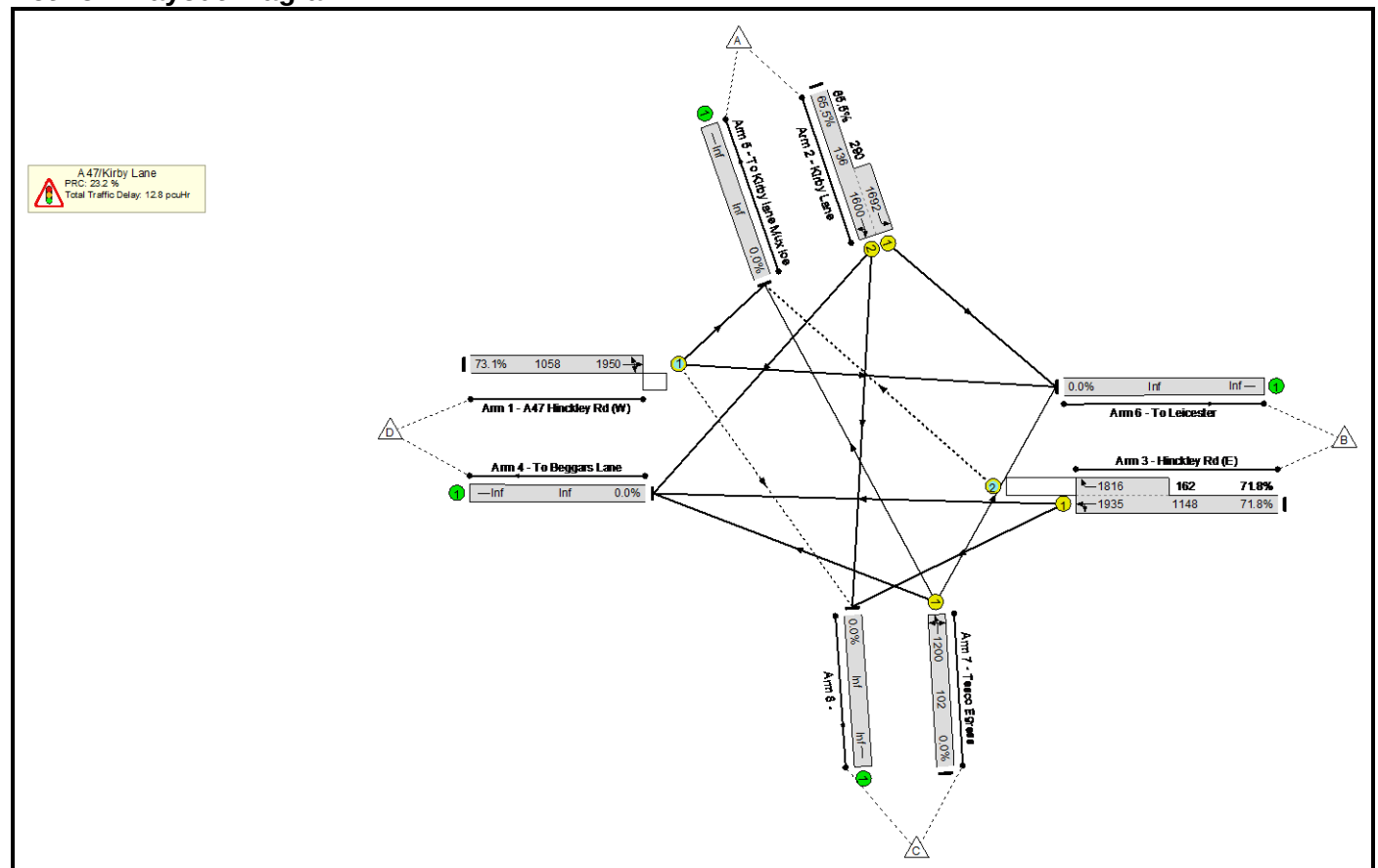
Basic Results Summary

User and Project Details

Project:	Earl Shilton Junction modelling
Title:	A47 / Kirby Lane Improvement Scheme
Location:	
Client:	LCC
Date Started:	20-12-2023
Model Assumptions:	The model is generated from the previous TA Report (A47_Kirby Lane LinSigs.pdf) and schme.(19_1610_OUT-Highway_Works_-_A47_Hinckley_Road_-_Kirby_Lane_Junction_Improvement). WSP is updated the flows on the previously committed scheme.
Additional detail:	
File name:	A47_Kirby Lane Improvement Scheme.lsg3x
Author:	INJA05275
Company:	WSP
Address:	

Scenario 1: '2036 DM AM' (FG1: '2036 DM AM', Plan 1: 'Network Control Plan 1')

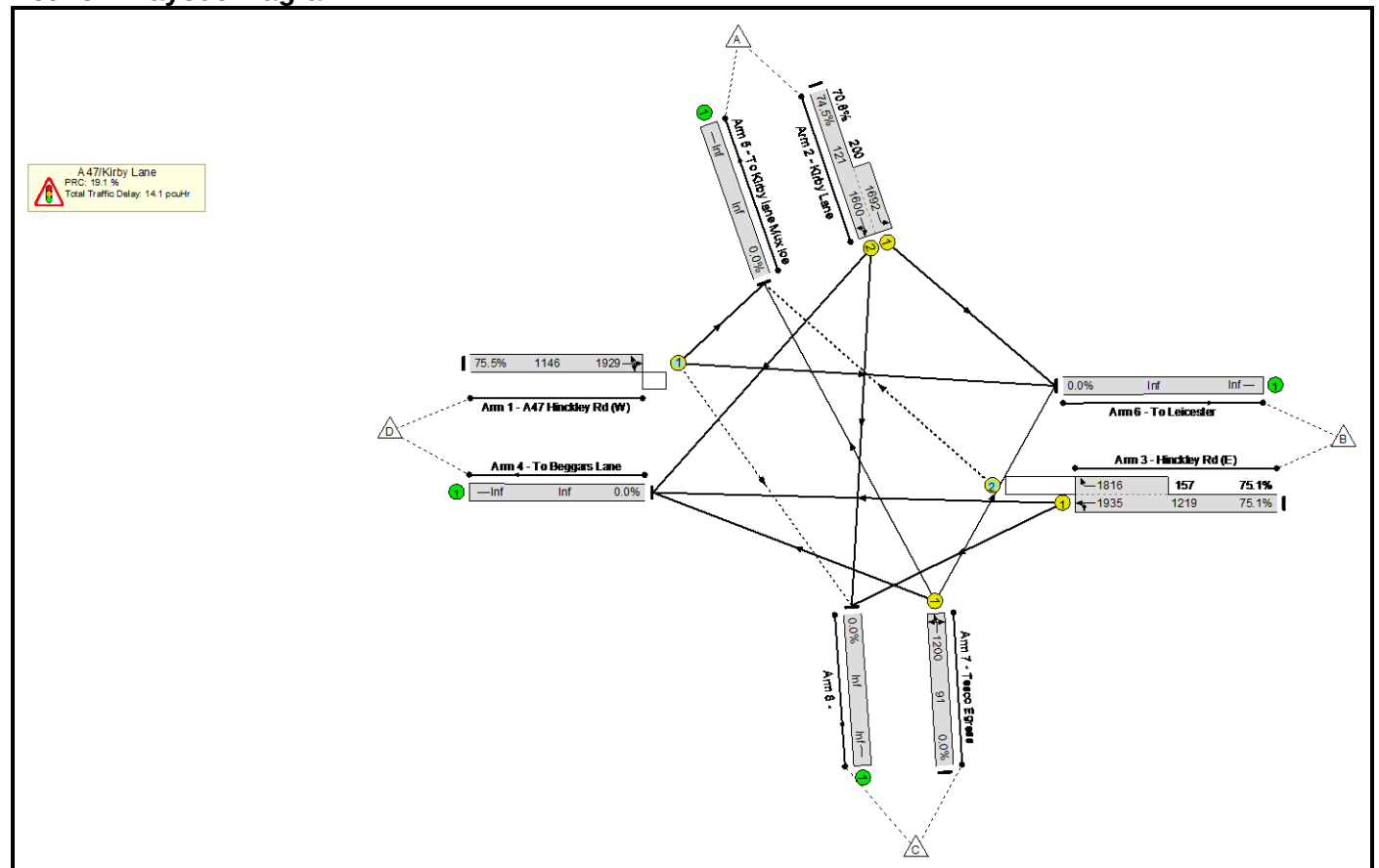
Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A47 / Kirby Lane Improvement Scheme	-	-	-		-	-	-	-	-	-	73.1%	97	11	7	12.8	-	-
A47/Kirby Lane	-	-	-		-	-	-	-	-	-	73.1%	97	11	7	12.8	-	-
1/1	A47 Hinckley Rd (W) Left Ahead Right	O	A		1	50	-	773	1950	1058	73.1%	0	0	0	4.8	22.6	16.6
2/2+2/1	Kirby Lane Right Left Ahead	U	E	D	1	7:17	10	279	1600:1692	136+290	65.5 : 65.5%	-	-	-	3.8	49.0	5.4
3/1+3/2	Hinckley Rd (E) Ahead Right Left	U+O	B	C	1	61	6	940	1935:1816	1148+162	71.8 : 71.8%	97	11	7	4.2	15.9	15.3
7/1	Tesco Egress Left Ahead Right	U	F		1	7	-	0	1200	102	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 23.2 Total Delay for Signalled Lanes (pcuHr): 12.80 Cycle Time (s): 94 PRC Over All Lanes (%): 23.2 Total Delay Over All Lanes(pcuHr): 12.80																	

Network Layout Diagram

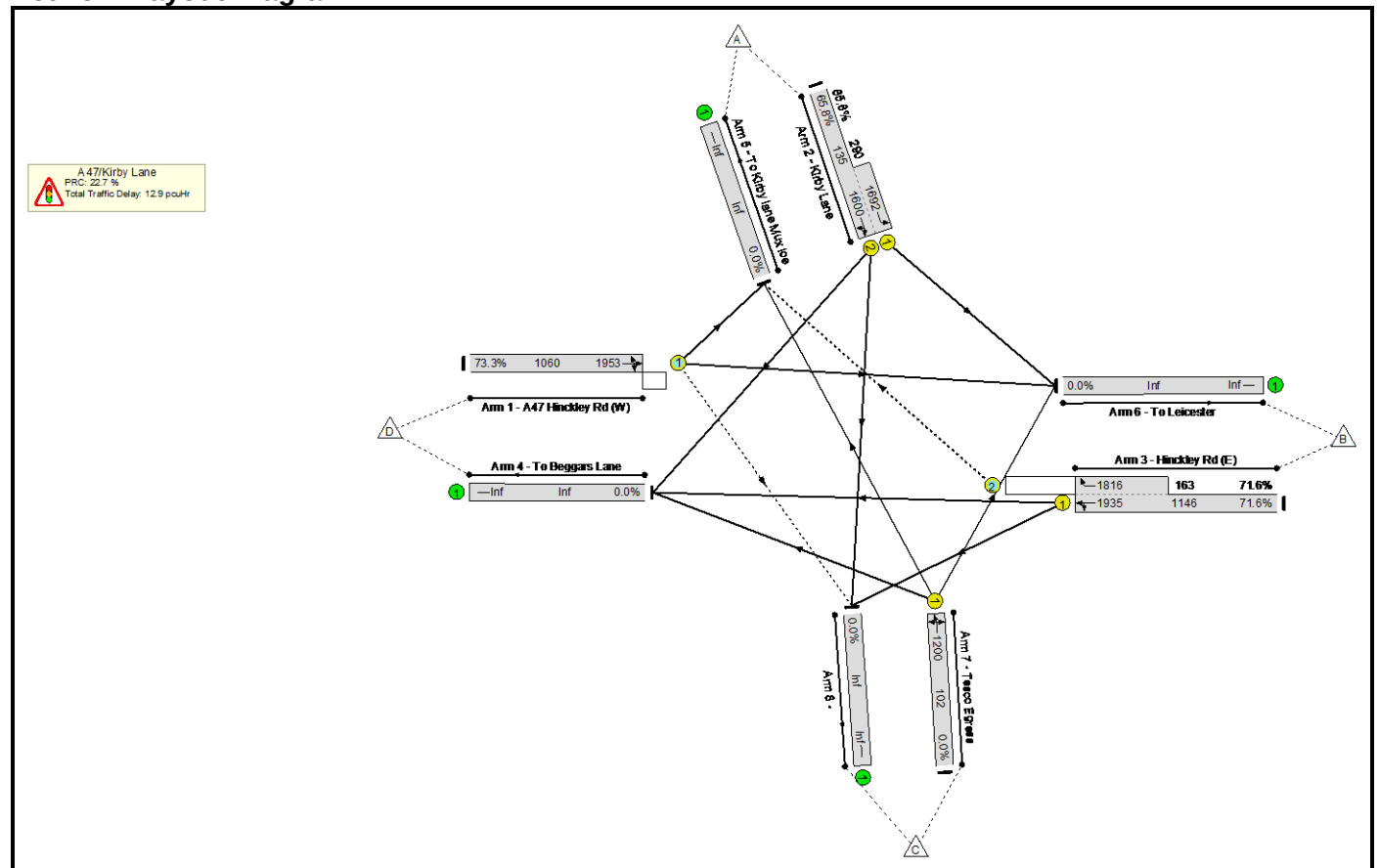


Network Results

Basic Results Summary

Scenario 3: '2036 DS AM' (FG3: '2036 DS AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



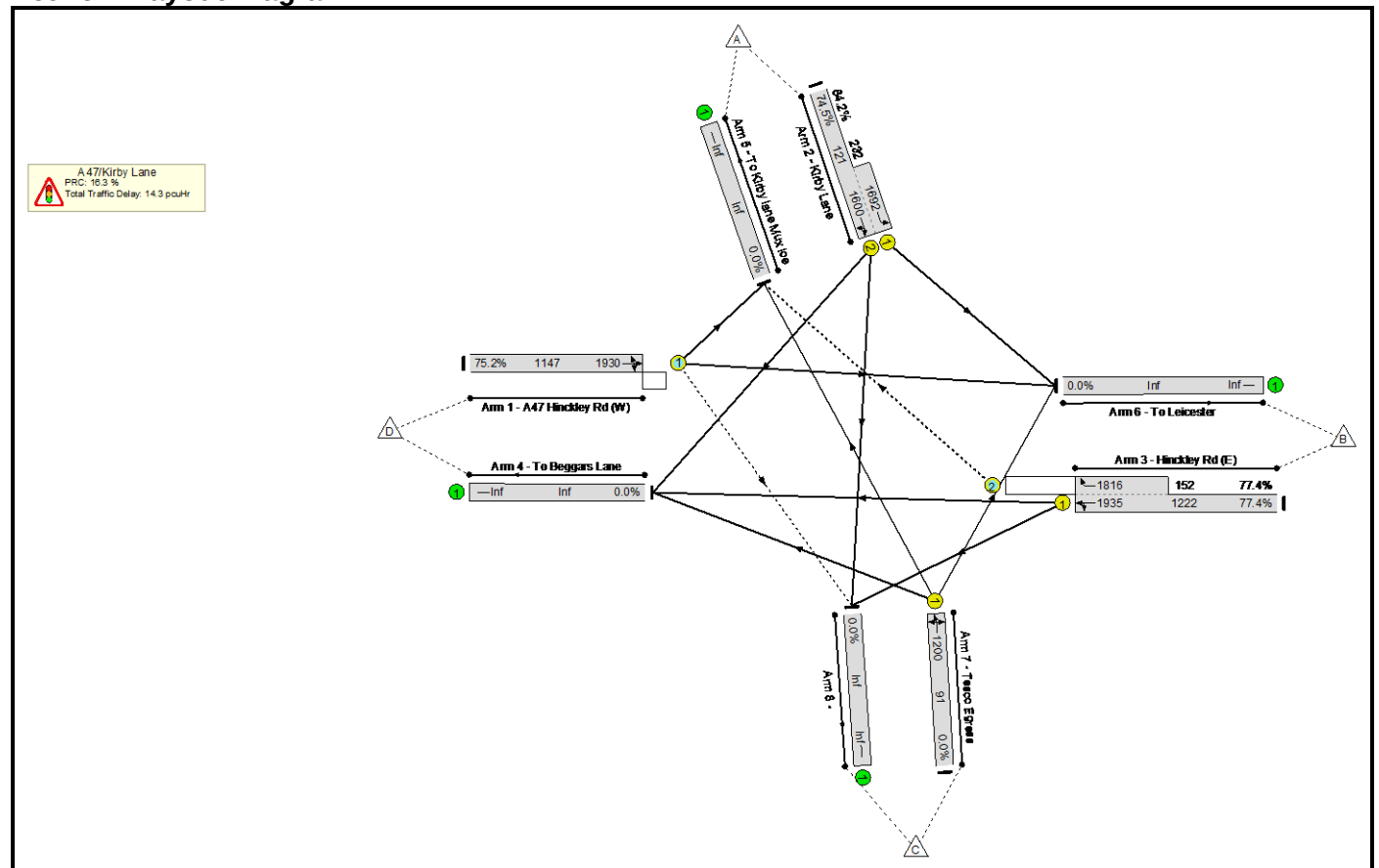
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A47 / Kirby Lane Improvement Scheme	-	-	-		-	-	-	-	-	-	73.3%	98	11	7	12.9	-	-
A47/Kirby Lane	-	-	-		-	-	-	-	-	-	73.3%	98	11	7	12.9	-	-
1/1	A47 Hinckley Rd (W) Left Ahead Right	O	A		1	50	-	777	1953	1060	73.3%	0	0	0	4.9	22.6	16.7
2/2+2/1	Kirby Lane Right Left Ahead	U	E	D	1	7:17	10	280	1600:1692	135+290	65.8 : 65.8%	-	-	-	3.8	49.1	5.5
3/1+3/2	Hinckley Rd (E) Ahead Right Left	U+O	B	C	1	61	6	938	1935:1816	1146+163	71.6 : 71.6%	98	11	7	4.2	15.9	15.2
7/1	Tesco Egress Left Ahead Right	U	F		1	7	-	0	1200	102	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 22.7 Total Delay for Signalled Lanes (pcuHr): 12.86 Cycle Time (s): 94 PRC Over All Lanes (%): 22.7 Total Delay Over All Lanes(pcuHr): 12.86																	

Basic Results Summary

Scenario 4: '2036 DS PM' (FG4: '2036 DS PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Network Results

[illegible]