

Appendix 23

Junctions 9 Output Files

Junctions 9															
ARCADY 9 - Roundabout Module															
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Filename: Junction 1 (existing geometry).j9

Path: C:\Users\Joseph\Highgate Transportation\HTp - Documents\2300 - Projects\2314 - Ellesmere\Modelling\Junctions 9

Report generation date: 04/04/2023 15:27:36

»2023 Base, AM
 »2023 Base, PM
 »2023 Base, (Sat)
 »2028 Base + Com, AM
 »2028 Base + Com, PM
 »2028 Base + Com, (Sat)

Summary of junction performance

	AM					PM					(Sat)				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2023 Base														
Arm 1	D1	0.0	4.85	0.03	A	D2	0.0	3.44	0.05	A	D3	0.0	3.91	0.01	A
Arm 2		0.4	3.48	0.29	A		0.3	3.11	0.24	A		0.1	2.63	0.12	A
Arm 3		0.4	3.72	0.28	A		0.3	3.09	0.21	A		0.2	2.79	0.14	A
	2028 Base + Com														
Arm 1	D4	0.0	4.92	0.03	A	D5	0.1	3.50	0.05	A	D6	0.0	3.96	0.01	A
Arm 2		0.4	3.57	0.31	A		0.3	3.17	0.26	A		0.2	2.68	0.14	A
Arm 3		0.4	3.75	0.29	A		0.3	3.16	0.23	A		0.2	2.82	0.16	A

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

File summary

File Description

Title	
Location	
Site number	
Date	29/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Joseph
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15
D4	2028 Base + Com	AM	ONE HOUR	07:45	09:15	15
D5	2028 Base + Com	PM	ONE HOUR	16:45	18:15	15
D6	2028 Base + Com	(Sat)	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.64	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Ellesmere Business Park	Ellesmere Business Park
2	A495 (E)	A495 (E)
3	A495 (W)	A495 (W)

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)	Exit only
1	4.50	6.60	3.5	19.0	15.6	79.0	
2	4.60	7.00	8.1	44.3	15.6	68.0	
3	4.90	7.10	5.9	30.0	15.6	79.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.531	1308
2	0.608	1581
3	0.579	1514

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	21	100.000

2		✓	381	100.000
3		✓	344	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	16	5
	2	43	2	336
	3	9	335	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	56	0
	2	26	50	6
	3	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.03	4.85	0.0	A
2	0.29	3.48	0.4	A
3	0.28	3.72	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	16	253	813	0.019	16	0.0	4.512	A
2	287	4	1456	0.197	286	0.2	3.074	A
3	259	34	1357	0.191	258	0.2	3.273	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	19	303	793	0.024	19	0.0	4.649	A
2	343	4	1455	0.235	342	0.3	3.234	A
3	309	40	1352	0.229	309	0.3	3.450	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	23	371	765	0.030	23	0.0	4.851	A
2	419	5	1455	0.288	419	0.4	3.476	A
3	379	50	1346	0.281	378	0.4	3.717	A

08:30 - 08:45

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised
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	(Veh/hr)	flow (Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh)		level of service
1	23	371	765	0.030	23	0.0	4.852	A
2	419	6	1455	0.288	419	0.4	3.476	A
3	379	50	1346	0.281	379	0.4	3.720	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	19	303	793	0.024	19	0.0	4.651	A
2	343	5	1455	0.235	343	0.3	3.239	A
3	309	40	1352	0.229	310	0.3	3.453	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	16	254	813	0.019	16	0.0	4.517	A
2	287	4	1456	0.197	287	0.2	3.083	A
3	259	34	1357	0.191	259	0.2	3.280	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	45	100.000
2		✓	337	100.000
3		✓	289	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	37	8
	2	15	0	322
	3	4	285	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	5	0
	2	27	0	2
	3	25	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.05	3.44	0.0	A
2	0.24	3.11	0.3	A
3	0.21	3.09	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	214	1147	0.030	34	0.0	3.234	A
2	254	6	1530	0.166	253	0.2	2.817	A
3	218	11	1486	0.146	217	0.2	2.836	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	40	256	1125	0.036	40	0.0	3.318	A
2	303	7	1529	0.198	303	0.2	2.934	A
3	260	13	1484	0.175	260	0.2	2.940	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	50	314	1095	0.045	50	0.0	3.441	A
2	371	9	1529	0.243	371	0.3	3.109	A
3	318	17	1482	0.215	318	0.3	3.093	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	50	314	1095	0.045	50	0.0	3.441	A
2	371	9	1529	0.243	371	0.3	3.109	A
3	318	17	1482	0.215	318	0.3	3.093	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	40	256	1125	0.036	40	0.0	3.319	A
2	303	7	1529	0.198	303	0.2	2.938	A
3	260	13	1484	0.175	260	0.2	2.941	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	215	1146	0.030	34	0.0	3.235	A
2	254	6	1530	0.166	254	0.2	2.820	A
3	218	11	1486	0.146	218	0.2	2.841	A

2023 Base, (Sat)

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	7	100.000
2		✓	168	100.000
3		✓	188	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	1	2	3	
From	1	0	7	0
	2	5	1	162
	3	0	188	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	29	0
	2	0	0	2
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.01	3.91	0.0	A
2	0.12	2.63	0.1	A
3	0.14	2.79	0.2	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	142	955	0.006	5	0.0	3.788	A
2	126	0	1552	0.082	126	0.1	2.525	A
3	142	5	1496	0.095	141	0.1	2.657	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	170	944	0.007	6	0.0	3.839	A
2	151	0	1552	0.097	151	0.1	2.569	A
3	169	5	1496	0.113	169	0.1	2.713	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	208	928	0.008	8	0.0	3.911	A
2	185	0	1552	0.119	185	0.1	2.633	A
3	207	7	1495	0.138	207	0.2	2.794	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	208	928	0.008	8	0.0	3.912	A
2	185	0	1552	0.119	185	0.1	2.633	A
3	207	7	1495	0.138	207	0.2	2.794	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	170	944	0.007	6	0.0	3.840	A
2	151	0	1552	0.097	151	0.1	2.572	A
3	169	5	1496	0.113	169	0.1	2.715	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	142	955	0.006	5	0.0	3.791	A
2	126	0	1552	0.082	127	0.1	2.525	A
3	142	5	1496	0.095	142	0.1	2.657	A

2028 Base + Com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Base + Com	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	22	100.000
2		✓	406	100.000
3		✓	359	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	17	5
	2	46	2	358
	3	9	350	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	56	0
	2	25	50	6
	3	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.03	4.92	0.0	A
2	0.31	3.57	0.4	A
3	0.29	3.75	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	17	264	806	0.021	16	0.0	4.557	A
2	306	4	1457	0.210	305	0.3	3.120	A
3	270	36	1367	0.198	269	0.2	3.275	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	20	316	785	0.025	20	0.0	4.701	A
2	365	4	1457	0.251	365	0.3	3.296	A
3	323	43	1363	0.237	322	0.3	3.461	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	24	387	757	0.032	24	0.0	4.914	A
2	447	5	1456	0.307	447	0.4	3.563	A
3	395	53	1356	0.291	395	0.4	3.742	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	24	388	756	0.032	24	0.0	4.915	A
2	447	6	1456	0.307	447	0.4	3.566	A
3	395	53	1356	0.291	395	0.4	3.745	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	20	317	785	0.025	20	0.0	4.705	A
2	365	5	1457	0.251	365	0.3	3.301	A
3	323	43	1363	0.237	323	0.3	3.466	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	17	265	806	0.021	17	0.0	4.562	A
2	306	4	1457	0.210	306	0.3	3.129	A
3	270	36	1367	0.198	271	0.2	3.284	A

2028 Base + Com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base + Com	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	48	100.000
2		✓	358	100.000
3		✓	310	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		1	2	3
	1	0	40	8
	2	16	2	340
	3	4	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		1	2	3
	1	0	5	0
	2	26	0	2
	3	25	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.05	3.50	0.1	A
2	0.26	3.17	0.3	A
3	0.23	3.16	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	231	1137	0.032	36	0.0	3.268	A
2	270	6	1531	0.176	269	0.2	2.851	A
3	233	14	1485	0.157	233	0.2	2.874	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	277	1114	0.039	43	0.0	3.361	A
2	322	7	1530	0.210	322	0.3	2.978	A
3	279	16	1483	0.188	279	0.2	2.989	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	53	339	1082	0.049	53	0.1	3.497	A
2	394	9	1529	0.258	394	0.3	3.170	A
3	341	20	1480	0.231	341	0.3	3.160	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	53	339	1082	0.049	53	0.1	3.498	A
2	394	9	1529	0.258	394	0.3	3.170	A
3	341	20	1480	0.231	341	0.3	3.160	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	277	1114	0.039	43	0.0	3.365	A
2	322	7	1530	0.210	322	0.3	2.982	A
3	279	16	1483	0.188	279	0.2	2.990	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	232	1137	0.032	36	0.0	3.270	A
2	270	6	1531	0.176	270	0.2	2.854	A
3	233	14	1485	0.157	234	0.2	2.879	A

2028 Base + Com, (Sat)

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Base + Com	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	7	100.000
2		✓	191	100.000
3		✓	213	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	7	0
	2	6	1	184
	3	0	213	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	29	0
	2	0	0	2
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.01	3.96	0.0	A
2	0.14	2.68	0.2	A
3	0.16	2.82	0.2	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	161	948	0.006	5	0.0	3.816	A
2	144	0	1552	0.093	143	0.1	2.556	A
3	160	5	1511	0.106	160	0.1	2.665	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	192	935	0.007	6	0.0	3.875	A
2	172	0	1552	0.111	172	0.1	2.608	A
3	191	6	1510	0.127	191	0.1	2.729	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	235	917	0.008	8	0.0	3.956	A
2	210	0	1552	0.136	210	0.2	2.683	A
3	235	8	1509	0.155	234	0.2	2.823	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	236	917	0.008	8	0.0	3.957	A
2	210	0	1552	0.136	210	0.2	2.683	A
3	235	8	1509	0.155	235	0.2	2.823	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	193	935	0.007	6	0.0	3.875	A
2	172	0	1552	0.111	172	0.1	2.610	A
3	191	6	1510	0.127	192	0.1	2.730	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	161	948	0.006	5	0.0	3.820	A
2	144	0	1552	0.093	144	0.1	2.557	A
3	160	5	1511	0.106	160	0.1	2.668	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction 1 proposed geometry).j9

Path: C:\Users\Joseph\Highgate Transportation\HTp - Documents\2300 - Projects\2314 - Ellesmere\Modelling\Junctions 9

Report generation date: 04/04/2023 17:48:49

»2028+Base+Dev, AM

»2028+Base+Dev, PM

»2028+Base+Dev, Sat

Summary of junction performance

	AM					PM					Sat				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2028+Base+Dev														
Arm 1	D1	0.0	4.26	0.03	A	D2	0.0	3.08	0.04	A	D3	0.0	3.48	0.01	A
Arm 2		1.1	7.25	0.53	A		1.0	6.68	0.51	A		0.5	4.78	0.32	A
Arm 3		0.3	3.83	0.24	A		0.3	3.65	0.22	A		0.3	3.30	0.23	A
Arm 4		0.6	5.35	0.39	A		0.5	4.52	0.34	A		0.3	3.89	0.24	A

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

File summary

File Description

Title	
Location	
Site number	
Date	04/04/2023
Version	
Status	(new file)
Identifier	
Client	
Job number	
Enumerator	AzureAD\Joseph
Description	

Units

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

Analysis Options

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

Demand Set Summary

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ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028+Base+Dev	AM	ONE HOUR	07:45	09:15	15
D2	2028+Base+Dev	PM	ONE HOUR	16:45	18:15	15
D3	2028+Base+Dev	Sat	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028+Base+Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Business Park	Business Park
2	A495 (E)	A495 (E)
3	Development Site	Development Site
4	A495 (W)	A495 (W)

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)	Exit only
1	4.40	6.40	6.5	20.6	19.4	23.0	
2	3.30	6.00	2.7	21.0	19.4	34.0	
3	4.80	6.90	2.1	22.5	19.4	48.0	
4	3.90	5.80	1.9	30.0	19.4	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.669	1681
2	0.554	1181
3	0.608	1514
4	0.602	1354

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028+Base+Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	21	100.000
2		✓	501	100.000
3		✓	276	100.000
4		✓	396	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	0	14	3	4
	2	39	2	152	308
	3	7	165	0	104
	4	8	300	88	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	65	0	0
	2	29	50	1	7
	3	0	1	0	1
	4	0	11	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.03	4.26	0.0	A
2	0.53	7.25	1.1	A
3	0.24	3.83	0.3	A
4	0.39	5.35	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	16	416	966	0.016	16	0.0	3.788	A
2	377	71	1066	0.354	375	0.5	5.196	A
3	208	264	1325	0.157	207	0.2	3.218	A
4	298	160	1153	0.259	297	0.3	4.197	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	19	498	925	0.020	19	0.0	3.973	A
2	450	85	1058	0.426	450	0.7	5.905	A
3	248	317	1290	0.192	248	0.2	3.452	A
4	356	191	1134	0.314	356	0.5	4.621	A

08:15 - 08:30

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Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	23	610	869	0.027	23	0.0	4.254	A
2	552	104	1048	0.526	550	1.1	7.205	A
3	304	388	1244	0.244	304	0.3	3.829	A
4	436	234	1109	0.393	435	0.6	5.338	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	23	611	869	0.027	23	0.0	4.257	A
2	552	105	1048	0.526	552	1.1	7.245	A
3	304	389	1243	0.244	304	0.3	3.832	A
4	436	235	1109	0.393	436	0.6	5.350	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	19	500	924	0.020	19	0.0	3.977	A
2	450	86	1058	0.426	452	0.7	5.951	A
3	248	318	1289	0.192	248	0.2	3.458	A
4	356	192	1134	0.314	357	0.5	4.635	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	16	418	965	0.016	16	0.0	3.793	A
2	377	72	1066	0.354	378	0.6	5.240	A
3	208	266	1324	0.157	208	0.2	3.226	A
4	298	161	1152	0.259	299	0.4	4.219	A

2028+Base+Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028+Base+Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	48	100.000
2		✓	502	100.000
3		✓	259	100.000
4		✓	375	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1	2	3	4
	1	0	36	4	8
	2	14	2	175	311
	3	2	171	0	86
	4	4	280	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1	2	3	4
	1	0	6	0	0
	2	29	0	1	2
	3	0	1	0	1
	4	27	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.04	3.08	0.0	A
2	0.51	6.68	1.0	A
3	0.22	3.65	0.3	A
4	0.34	4.52	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	408	1345	0.027	36	0.0	2.750	A
2	378	77	1111	0.340	376	0.5	4.882	A
3	195	251	1344	0.145	194	0.2	3.130	A
4	282	142	1250	0.226	281	0.3	3.710	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	489	1293	0.033	43	0.0	2.880	A
2	451	93	1103	0.409	451	0.7	5.514	A
3	233	301	1313	0.177	233	0.2	3.332	A
4	337	170	1233	0.273	337	0.4	4.016	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	53	598	1222	0.043	53	0.0	3.079	A
2	553	113	1091	0.506	551	1.0	6.650	A
3	285	368	1271	0.224	285	0.3	3.651	A
4	413	208	1210	0.341	412	0.5	4.512	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	53	599	1221	0.043	53	0.0	3.080	A
2	553	113	1091	0.506	553	1.0	6.682	A
3	285	369	1270	0.224	285	0.3	3.652	A
4	413	208	1210	0.341	413	0.5	4.518	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	490	1292	0.033	43	0.0	2.885	A
2	451	93	1103	0.409	453	0.7	5.548	A
3	233	302	1312	0.177	233	0.2	3.339	A
4	337	170	1233	0.273	338	0.4	4.024	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	410	1343	0.027	36	0.0	2.753	A
2	378	78	1111	0.340	379	0.5	4.922	A

3	195	253	1343	0.145	195	0.2	3.139	A
4	282	142	1250	0.226	283	0.3	3.722	A

2028+Base+Dev, Sat

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028+Base+Dev	Sat	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	7	100.000
2		✓	315	100.000
3		✓	298	100.000
4		✓	265	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	5	2	0
	2	4	1	175	135
	3	2	199	0	97
	4	0	156	109	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	40	0	0
	2	0	0	0	3
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.01	3.48	0.0	A
2	0.32	4.78	0.5	A
3	0.23	3.30	0.3	A
4	0.24	3.89	0.3	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	349	1126	0.005	5	0.0	3.212	A
2	237	83	1120	0.212	236	0.3	4.066	A
3	224	105	1449	0.155	224	0.2	2.937	A
4	200	155	1261	0.158	199	0.2	3.387	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	418	1090	0.006	6	0.0	3.321	A
2	283	100	1111	0.255	283	0.3	4.344	A
3	268	126	1436	0.187	268	0.2	3.082	A
4	238	185	1243	0.192	238	0.2	3.583	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	511	1041	0.007	8	0.0	3.482	A
2	347	122	1099	0.316	346	0.5	4.779	A
3	328	154	1418	0.231	328	0.3	3.302	A
4	292	227	1218	0.240	291	0.3	3.886	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	8	512	1041	0.007	8	0.0	3.483	A
2	347	122	1099	0.316	347	0.5	4.785	A
3	328	154	1418	0.231	328	0.3	3.302	A
4	292	227	1218	0.240	292	0.3	3.888	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	6	419	1090	0.006	6	0.0	3.322	A
2	283	100	1111	0.255	284	0.3	4.353	A
3	268	126	1435	0.187	268	0.2	3.084	A
4	238	185	1242	0.192	239	0.2	3.588	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	5	350	1125	0.005	5	0.0	3.214	A
2	237	84	1120	0.212	237	0.3	4.079	A

3	224	106	1448	0.155	225	0.2	2.941	A
4	200	155	1261	0.158	200	0.2	3.395	A

Junctions 9														
ARCADY 9 - Roundabout Module														
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Filename: Junction 3 (Mini Roundabout).j9

Path: C:\Users\Joseph\Highgate Transportation\HTp - Documents\2300 - Projects\2314 - Ellesmere\Modelling\Junctions 9

Report generation date: 04/04/2023 16:21:01

»2023 Base, AM
 »2023 Base, PM
 »2023 Base, (Sat)
 »2028 Base, AM
 »2028 Base, PM
 »2028 Base, (Sat)
 »2028 Base + Dev, AM
 »2028 Base + Dev, PM
 »2028 Base + Dev, (Sat)

Summary of junction performance

	AM					PM					(Sat)				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2023 Base														
Arm 1	D1	1.1	8.50	0.52	A	D2	1.1	8.12	0.52	A	D3	0.4	5.53	0.30	A
Arm 2		0.1	5.91	0.10	A		0.1	5.48	0.09	A		0.0	4.54	0.05	A
Arm 3		0.9	7.46	0.46	A		0.6	6.17	0.39	A		0.5	5.50	0.33	A
	2028 Base														
Arm 1	D4	1.2	9.04	0.55	A	D5	1.3	8.95	0.56	A	D6	0.5	5.75	0.33	A
Arm 2		0.1	6.03	0.11	A		0.1	5.71	0.10	A		0.1	4.64	0.05	A
Arm 3		1.0	8.11	0.51	A		0.7	6.45	0.42	A		0.5	5.74	0.35	A
	2028 Base + Dev														
Arm 1	D7	2.1	12.99	0.68	B	D8	3.7	19.39	0.80	C	D9	1.1	8.44	0.54	A
Arm 2		0.2	6.92	0.15	A		0.2	7.33	0.16	A		0.1	5.59	0.09	A
Arm 3		2.1	12.27	0.68	B		1.7	10.03	0.63	B		1.4	8.91	0.58	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	29/03/2023
Version	
Status	(new file)
Identifier	
Client	

Jobnumber	
Enumerator	AzureAD\Joseph
Description	

Units

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

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15
D4	2028 Base	AM	ONE HOUR	07:45	09:15	15
D5	2028 Base	PM	ONE HOUR	16:45	18:15	15
D6	2028 Base	(Sat)	ONE HOUR	15:45	17:15	15
D7	2028 Base + Dev	AM	ONE HOUR	07:45	09:15	15
D8	2028 Base + Dev	PM	ONE HOUR	16:45	18:15	15
D9	2028 Base + Dev	(Sat)	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	7.85	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Victoria Street	Victoria Street
2	Scotland Street (E)	Scotland Street (E)
3	Scotland Street (W)	Scotland Street (W)

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.00	0.0	5.00	2.00	0.0	
2	3.00	3.00	3.00	0.0	5.00	2.00	0.0	
3	3.00	3.00	3.00	0.0	5.00	2.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.590	985
2	0.590	985
3	0.590	985

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	419	100.000
2		✓	64	100.000
3		✓	378	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	44	375
	2	15	2	47
	3	321	57	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.52	8.50	1.1	A
2	0.10	5.91	0.1	A
3	0.46	7.46	0.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	315	44	897	0.352	313	0.5	6.149	A
2	48	280	758	0.064	48	0.1	5.071	A
3	285	13	902	0.316	283	0.5	5.801	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	377	53	892	0.422	376	0.7	6.971	A
2	58	336	725	0.079	57	0.1	5.396	A
3	340	15	900	0.377	339	0.6	6.410	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	65	885	0.521	460	1.1	8.448	A
2	70	412	680	0.104	70	0.1	5.905	A
3	416	19	898	0.463	415	0.9	7.435	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	461	65	885	0.522	461	1.1	8.502	A
2	70	413	679	0.104	70	0.1	5.912	A
3	416	19	898	0.463	416	0.9	7.464	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	377	53	891	0.423	378	0.7	7.029	A
2	58	338	723	0.080	58	0.1	5.407	A
3	340	15	900	0.377	341	0.6	6.447	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	315	45	896	0.352	316	0.5	6.214	A
2	48	283	756	0.064	48	0.1	5.085	A
3	285	13	902	0.316	285	0.5	5.845	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	7.14	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	432	100.000
2		✓	58	100.000
3		✓	345	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	54	378
	2	13	0	45
	3	286	59	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.52	8.12	1.1	A
2	0.09	5.48	0.1	A
3	0.39	6.17	0.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	44	931	0.349	323	0.5	5.900	A
2	44	283	801	0.055	43	0.1	4.753	A
3	260	10	966	0.269	258	0.4	5.075	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	53	926	0.419	388	0.7	6.676	A
2	52	339	767	0.068	52	0.1	5.036	A
3	310	12	965	0.321	310	0.5	5.490	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	476	65	919	0.518	474	1.1	8.069	A
2	64	415	721	0.089	64	0.1	5.473	A
3	380	14	964	0.394	379	0.6	6.152	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	476	65	919	0.518	476	1.1	8.118	A
2	64	416	721	0.089	64	0.1	5.479	A
3	380	14	963	0.394	380	0.6	6.167	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	53	926	0.419	390	0.7	6.729	A
2	52	341	766	0.068	52	0.1	5.045	A
3	310	12	965	0.321	311	0.5	5.508	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	44	931	0.349	326	0.5	5.958	A
2	44	285	799	0.055	44	0.1	4.765	A
3	260	10	966	0.269	260	0.4	5.104	A

2023 Base, (Sat)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 94% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	5.46	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	258	100.000
2		✓	35	100.000
3		✓	287	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	25	233
	2	5	0	30
	3	238	49	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.30	5.53	0.4	A
2	0.05	4.54	0.0	A
3	0.33	5.50	0.5	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	37	946	0.205	193	0.3	4.779	A
2	26	174	880	0.030	26	0.0	4.217	A
3	216	4	971	0.222	215	0.3	4.753	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	44	941	0.246	232	0.3	5.072	A
2	31	209	859	0.037	31	0.0	4.350	A
3	258	4	971	0.266	258	0.4	5.045	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	54	936	0.304	284	0.4	5.518	A
2	39	256	831	0.046	38	0.0	4.544	A
3	316	5	970	0.326	316	0.5	5.495	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	54	936	0.304	284	0.4	5.525	A
2	39	257	830	0.046	39	0.0	4.545	A
3	316	6	970	0.326	316	0.5	5.501	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	44	941	0.246	232	0.3	5.080	A
2	31	210	859	0.037	32	0.0	4.354	A
3	258	5	971	0.266	258	0.4	5.058	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	37	946	0.205	195	0.3	4.794	A
2	26	176	879	0.030	26	0.0	4.221	A
3	216	4	971	0.222	216	0.3	4.772	A

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	8.40	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	439	100.000
2		✓	68	100.000
3		✓	412	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	45	394
	2	17	2	49
	3	350	62	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.55	9.04	1.2	A
2	0.11	6.03	0.1	A
3	0.51	8.11	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	331	48	894	0.369	328	0.6	6.332	A
2	51	295	755	0.068	51	0.1	5.107	A
3	310	14	901	0.344	308	0.5	6.053	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	57	889	0.444	394	0.8	7.259	A
2	61	353	720	0.085	61	0.1	5.461	A
3	370	17	899	0.412	370	0.7	6.789	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	483	70	881	0.548	482	1.2	8.969	A
2	75	432	673	0.111	75	0.1	6.014	A
3	454	21	897	0.506	452	1.0	8.069	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	483	70	881	0.548	483	1.2	9.040	A
2	75	434	672	0.111	75	0.1	6.025	A
3	454	21	897	0.506	454	1.0	8.114	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	58	889	0.444	396	0.8	7.331	A
2	61	356	719	0.085	61	0.1	5.476	A
3	370	17	899	0.412	372	0.7	6.837	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	331	48	894	0.370	331	0.6	6.407	A
2	51	297	754	0.068	51	0.1	5.127	A
3	310	14	901	0.344	311	0.5	6.112	A

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	7.71	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	467	100.000
2		✓	62	100.000
3		✓	368	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	56	411
	2	13	0	49
	3	305	63	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.56	8.95	1.3	A
2	0.10	5.71	0.1	A
3	0.42	6.45	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	352	47	929	0.378	349	0.6	6.180	A
2	47	307	786	0.059	46	0.1	4.869	A
3	277	10	966	0.287	275	0.4	5.201	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	57	924	0.454	419	0.8	7.115	A
2	56	369	749	0.074	56	0.1	5.192	A
3	331	12	965	0.343	330	0.5	5.669	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	514	69	916	0.561	512	1.3	8.872	A
2	68	451	700	0.098	68	0.1	5.700	A
3	405	14	964	0.421	404	0.7	6.429	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	514	69	916	0.561	514	1.3	8.948	A
2	68	452	699	0.098	68	0.1	5.708	A
3	405	14	963	0.421	405	0.7	6.447	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	57	924	0.454	422	0.8	7.193	A
2	56	371	748	0.075	56	0.1	5.206	A
3	331	12	965	0.343	332	0.5	5.692	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	352	48	929	0.378	353	0.6	6.253	A
2	47	310	784	0.060	47	0.1	4.885	A
3	277	10	966	0.287	278	0.4	5.231	A

2028 Base, (Sat)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 94% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	5.68	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Base	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	279	100.000
2		✓	38	100.000
3		✓	312	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	26	253
	2	5	0	33
	3	259	53	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.33	5.75	0.5	A
2	0.05	4.64	0.1	A
3	0.35	5.74	0.5	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	210	40	944	0.223	209	0.3	4.891	A
2	29	189	871	0.033	28	0.0	4.273	A
3	235	4	971	0.242	234	0.3	4.872	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	48	939	0.267	251	0.4	5.225	A
2	34	227	848	0.040	34	0.0	4.422	A
3	280	4	971	0.289	280	0.4	5.209	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	58	933	0.329	307	0.5	5.743	A
2	42	278	817	0.051	42	0.1	4.640	A
3	344	5	970	0.354	343	0.5	5.734	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	58	933	0.329	307	0.5	5.753	A
2	42	279	817	0.051	42	0.1	4.642	A
3	344	6	970	0.354	344	0.5	5.743	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	48	939	0.267	251	0.4	5.239	A
2	34	228	848	0.040	34	0.0	4.426	A
3	280	5	971	0.289	281	0.4	5.222	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	210	40	944	0.223	210	0.3	4.912	A
2	29	191	870	0.033	29	0.0	4.278	A
3	235	4	971	0.242	235	0.3	4.894	A

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	12.23	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Base + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	543	100.000
2		✓	81	100.000
3		✓	563	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	45	498
	2	17	2	62
	3	478	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	5	6
	2	0	0	7
	3	7	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.68	12.99	2.1	B
2	0.15	6.92	0.2	A
3	0.68	12.27	2.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	409	65	892	0.458	405	0.8	7.346	A
2	61	372	714	0.085	61	0.1	5.507	A
3	424	14	916	0.462	420	0.8	7.209	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	488	78	885	0.552	487	1.2	9.008	A
2	73	446	670	0.109	73	0.1	6.029	A
3	506	17	915	0.553	505	1.2	8.742	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	598	95	875	0.684	594	2.1	12.683	B
2	89	545	611	0.146	89	0.2	6.893	A
3	620	21	913	0.679	617	2.0	12.014	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	598	96	874	0.684	598	2.1	12.985	B
2	89	548	609	0.146	89	0.2	6.919	A
3	620	21	913	0.679	620	2.1	12.266	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	488	79	884	0.552	492	1.3	9.244	A
2	73	451	667	0.109	73	0.1	6.060	A
3	506	17	915	0.553	509	1.3	8.949	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	409	66	892	0.458	410	0.9	7.505	A
2	61	376	711	0.086	61	0.1	5.536	A
3	424	14	916	0.463	425	0.9	7.357	A

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	14.63	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Base + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	655	100.000
2		✓	84	100.000
3		✓	551	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	56	599
	2	13	0	71
	3	457	94	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.80	19.39	3.7	C
2	0.16	7.33	0.2	A
3	0.63	10.03	1.7	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	493	70	924	0.534	489	1.1	8.186	A
2	63	447	710	0.089	63	0.1	5.559	A
3	415	10	968	0.429	412	0.7	6.443	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	589	84	916	0.643	586	1.7	10.841	B
2	76	536	657	0.115	75	0.1	6.192	A
3	495	12	967	0.512	494	1.0	7.601	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	721	103	905	0.797	714	3.6	18.169	C
2	92	653	587	0.158	92	0.2	7.272	A
3	607	14	965	0.629	604	1.6	9.904	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	721	103	904	0.797	721	3.7	19.394	C
2	92	659	583	0.159	92	0.2	7.332	A
3	607	14	965	0.629	607	1.7	10.032	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	589	85	915	0.643	596	1.9	11.532	B
2	76	545	651	0.116	76	0.1	6.260	A
3	495	12	967	0.512	498	1.1	7.716	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	493	71	924	0.534	496	1.2	8.471	A
2	63	453	706	0.090	63	0.1	5.605	A
3	415	10	968	0.429	416	0.8	6.541	A

2028 Base + Dev, (Sat)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 94% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	8.51	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 Base + Dev	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	447	100.000
2		✓	59	100.000
3		✓	516	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	26	421
	2	5	0	54
	3	428	88	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.54	8.44	1.1	A
2	0.09	5.59	0.1	A
3	0.58	8.91	1.4	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	337	66	937	0.359	334	0.6	5.954	A
2	44	315	797	0.056	44	0.1	4.779	A
3	388	4	973	0.399	386	0.7	6.105	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	79	929	0.433	401	0.8	6.808	A
2	53	378	760	0.070	53	0.1	5.093	A
3	464	4	972	0.477	463	0.9	7.052	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	492	97	919	0.536	491	1.1	8.380	A
2	65	462	709	0.092	65	0.1	5.584	A
3	568	5	972	0.585	566	1.4	8.831	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	492	97	918	0.536	492	1.1	8.440	A
2	65	463	709	0.092	65	0.1	5.592	A
3	568	6	972	0.585	568	1.4	8.910	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	79	929	0.433	403	0.8	6.872	A
2	53	380	758	0.070	53	0.1	5.106	A
3	464	5	972	0.477	466	0.9	7.132	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	337	66	936	0.359	337	0.6	6.016	A
2	44	318	796	0.056	44	0.1	4.795	A
3	388	4	973	0.399	389	0.7	6.180	A

Junctions 9														
ARCADY 9 - Roundabout Module														
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Filename: Junction 4.j9

Path: C:\Users\Joseph\Highgate Transportation\HTp - Documents\2300 - Projects\2314 - Ellesmere\Modelling\Junctions 9

Report generation date: 04/04/2023 15:57:02

»2023 Base, AM
 »2023 Base, PM
 »2023 Base, (Sat)
 »2028 Base + Com, AM
 »2028 Base + Com, PM
 »2028 Base + Com, (Sat)
 »2028 Base + Com + Dev, AM
 »2028 Base + Com + Dev, PM
 »2028 Base + Com + Dev, (Sat)

Summary of junction performance

	AM					PM					(Sat)				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2023 Base														
Arm 1	D1	1.1	8.09	0.52	A	D2	1.1	7.77	0.51	A	D3	0.3	4.82	0.25	A
Arm 2		0.3	6.34	0.26	A		0.6	7.75	0.38	A		0.2	4.39	0.14	A
Arm 3		0.9	5.79	0.46	A		0.6	4.92	0.37	A		0.3	3.70	0.24	A
Arm 4		0.7	9.92	0.42	A		0.7	9.04	0.42	A		0.2	5.80	0.19	A
	2028 Base + Com														
Arm 1	D4	1.2	8.51	0.54	A	D5	1.2	8.39	0.55	A	D6	0.4	4.95	0.27	A
Arm 2		0.4	6.57	0.27	A		0.7	8.32	0.41	A		0.2	4.48	0.15	A
Arm 3		1.0	6.21	0.50	A		0.6	5.14	0.39	A		0.3	3.76	0.25	A
Arm 4		0.8	10.70	0.45	B		0.8	9.65	0.45	A		0.2	5.89	0.20	A
	2028 Base + Com + Dev														
Arm 1	D7	1.7	10.58	0.63	B	D8	2.4	13.18	0.71	B	D9	0.6	6.00	0.39	A
Arm 2		0.4	7.39	0.31	A		1.0	11.39	0.51	B		0.2	5.15	0.19	A
Arm 3		1.1	6.46	0.52	A		0.7	5.41	0.42	A		0.4	3.89	0.27	A
Arm 4		1.0	11.83	0.50	B		1.1	11.70	0.54	B		0.3	6.43	0.25	A

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

File summary

File Description

Title	
Location	
Site number	
Date	04/04/2023
Version	
Status	(new file)

Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Joseph
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15
D4	2028 Base + Com	AM	ONE HOUR	07:45	09:15	15
D5	2028 Base + Com	PM	ONE HOUR	16:45	18:15	15
D6	2028 Base + Com	(Sat)	ONE HOUR	15:45	17:15	15
D7	2028 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15
D8	2028 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15
D9	2028 Base + Com + Dev	(Sat)	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A495 (E)	A495 (E)
2	Cross Street	Cross Street
3	A495 (W)	A495 (W)
4	A528 (N)	A528 (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)	Exit only
1	4.20	6.70	2.5	3.0	21.4	32.0	
2	3.80	5.60	1.5	23.0	21.4	65.0	
3	3.60	6.30	4.8	36.9	21.4	41.0	
4	3.20	5.50	0.8	24.6	21.4	68.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.439	1040
2	0.508	1119
3	0.589	1361
4	0.462	911

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	432	100.000
2		✓	178	100.000
3		✓	490	100.000
4		✓	242	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	0	0	363	69
	2	78	0	52	48
	3	381	0	0	109
	4	138	0	104	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	7	9
	2	4	0	6	4
	3	7	0	0	1
	4	6	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.52	8.09	1.1	A
2	0.26	6.34	0.3	A
3	0.46	5.79	0.9	A
4	0.42	9.92	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	78	936	0.347	323	0.5	5.851	A
2	134	401	862	0.155	133	0.2	4.935	A
3	369	146	1202	0.307	367	0.4	4.303	A
4	182	344	705	0.258	181	0.3	6.850	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	93	930	0.418	388	0.7	6.631	A
2	160	481	820	0.195	160	0.2	5.447	A
3	441	175	1185	0.372	440	0.6	4.827	A
4	218	412	673	0.323	217	0.5	7.886	A

08:15 - 08:30

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Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	476	114	921	0.517	474	1.0	8.037	A
2	196	588	765	0.256	196	0.3	6.320	A
3	540	214	1162	0.464	538	0.9	5.765	A
4	266	504	630	0.423	265	0.7	9.853	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	476	114	921	0.517	476	1.1	8.088	A
2	196	590	764	0.257	196	0.3	6.337	A
3	540	215	1162	0.464	539	0.9	5.786	A
4	266	505	629	0.423	266	0.7	9.918	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	388	94	929	0.418	390	0.7	6.688	A
2	160	484	819	0.195	160	0.2	5.468	A
3	441	176	1185	0.372	442	0.6	4.853	A
4	218	414	672	0.324	219	0.5	7.950	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	79	936	0.348	326	0.5	5.911	A
2	134	405	860	0.156	134	0.2	4.961	A
3	369	147	1201	0.307	370	0.4	4.331	A
4	182	346	704	0.259	183	0.4	6.916	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	446	100.000
2		✓	260	100.000
3		✓	386	100.000
4		✓	264	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
From		1	2	3	4	
	1	3	0	353	90	
	2	101	0	78	81	
	3	307	0	0	79	
	4	130	0	134	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	
	1	0	0	2	3	
	2	5	0	4	6	
	3	2	0	0	0	
	4	1	0	1	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.51	7.77	1.1	A
2	0.38	7.75	0.6	A
3	0.37	4.92	0.6	A
4	0.42	9.04	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	100	975	0.345	334	0.5	5.600	A
2	196	434	851	0.230	195	0.3	5.470	A
3	291	206	1215	0.239	289	0.3	3.884	A
4	199	308	757	0.263	197	0.4	6.421	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	120	966	0.415	400	0.7	6.357	A
2	234	520	809	0.289	233	0.4	6.252	A
3	347	247	1190	0.292	347	0.4	4.265	A
4	237	369	728	0.326	237	0.5	7.321	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	147	954	0.515	490	1.0	7.726	A
2	286	637	751	0.381	285	0.6	7.711	A
3	425	302	1157	0.367	424	0.6	4.911	A
4	291	452	689	0.422	290	0.7	8.992	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	148	954	0.515	491	1.1	7.774	A
2	286	639	751	0.381	286	0.6	7.753	A
3	425	303	1156	0.368	425	0.6	4.922	A
4	291	453	689	0.422	291	0.7	9.042	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	121	966	0.415	402	0.7	6.405	A
2	234	523	807	0.290	235	0.4	6.295	A
3	347	248	1189	0.292	348	0.4	4.281	A
4	237	370	727	0.326	238	0.5	7.376	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	101	974	0.345	337	0.5	5.652	A
2	196	438	850	0.230	196	0.3	5.513	A

3	291	207	1214	0.239	291	0.3	3.903	A
4	199	310	756	0.263	199	0.4	6.474	A

2023 Base, (Sat)

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	227	100.000
2		✓	118	100.000
3		✓	274	100.000
4		✓	132	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	3	0	182	42
	2	45	0	44	29
	3	226	0	0	48
	4	74	0	58	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.25	4.82	0.3	A
2	0.14	4.39	0.2	A
3	0.24	3.70	0.3	A
4	0.19	5.80	0.2	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	171	43	1005	0.170	170	0.2	4.308	A
2	89	214	1001	0.089	88	0.1	3.941	A
3	206	89	1298	0.159	206	0.2	3.294	A
4	99	206	810	0.123	99	0.1	5.061	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	52	1001	0.204	204	0.3	4.513	A
2	106	256	980	0.108	106	0.1	4.120	A
3	246	107	1288	0.191	246	0.2	3.456	A
4	119	246	791	0.150	119	0.2	5.349	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	64	996	0.251	250	0.3	4.819	A
2	130	313	950	0.137	130	0.2	4.387	A
3	302	131	1274	0.237	301	0.3	3.703	A
4	145	301	766	0.190	145	0.2	5.799	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	64	996	0.251	250	0.3	4.823	A
2	130	314	950	0.137	130	0.2	4.388	A
3	302	131	1273	0.237	302	0.3	3.703	A
4	145	302	766	0.190	145	0.2	5.803	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	52	1001	0.204	204	0.3	4.518	A
2	106	257	979	0.108	106	0.1	4.123	A
3	246	107	1287	0.191	247	0.2	3.458	A
4	119	247	791	0.150	119	0.2	5.356	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	171	44	1005	0.170	171	0.2	4.319	A
2	89	215	1001	0.089	89	0.1	3.950	A

3	206	90	1298	0.159	206	0.2	3.299	A
4	99	206	810	0.123	100	0.1	5.071	A

2028 Base + Com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Base + Com	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	450	100.000
2		✓	184	100.000
3		✓	525	100.000
4		✓	252	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1	2	3	4
	1	0	0	379	71
	2	81	0	54	49
	3	408	0	0	117
	4	143	0	109	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1	2	3	4
	1	0	0	7	9
	2	4	0	6	4
	3	7	0	0	1
	4	6	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.54	8.51	1.2	A
2	0.27	6.57	0.4	A
3	0.50	6.21	1.0	A
4	0.45	10.70	0.8	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	81	935	0.362	337	0.6	5.997	A
2	139	418	853	0.162	138	0.2	5.027	A
3	395	150	1200	0.330	393	0.5	4.454	A
4	190	366	694	0.273	188	0.4	7.092	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	405	98	928	0.436	404	0.8	6.869	A
2	165	501	810	0.204	165	0.3	5.580	A
3	472	180	1182	0.399	471	0.7	5.060	A
4	227	439	660	0.343	226	0.5	8.275	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	120	919	0.539	494	1.1	8.447	A
2	203	613	752	0.269	202	0.4	6.543	A
3	578	221	1158	0.499	577	1.0	6.179	A
4	277	537	614	0.452	276	0.8	10.610	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	120	918	0.540	495	1.2	8.509	A
2	203	615	751	0.270	203	0.4	6.565	A
3	578	221	1158	0.499	578	1.0	6.209	A
4	277	538	614	0.452	277	0.8	10.696	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	405	98	927	0.436	406	0.8	6.923	A
2	165	505	808	0.205	166	0.3	5.607	A
3	472	181	1181	0.400	473	0.7	5.092	A
4	227	441	660	0.343	228	0.5	8.356	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	82	934	0.363	340	0.6	6.063	A
2	139	422	851	0.163	139	0.2	5.057	A

3	395	152	1199	0.330	396	0.5	4.489	A
4	190	369	693	0.274	190	0.4	7.167	A

2028 Base + Com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base + Com	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	473	100.000
2		✓	271	100.000
3		✓	409	100.000
4		✓	277	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
From		1	2	3	4	
	1	3	0	377	93	
	2	104	0	83	84	
	3	325	0	0	84	
	4	134	0	143	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	
	1	0	0	2	3	
	2	5	0	4	6	
	3	2	0	0	0	
	4	1	0	1	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.55	8.39	1.2	A
2	0.41	8.32	0.7	A
3	0.39	5.14	0.6	A
4	0.45	9.65	0.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	356	107	972	0.366	354	0.6	5.806	A
2	204	461	838	0.243	203	0.3	5.653	A
3	308	212	1211	0.254	307	0.3	3.974	A
4	209	324	749	0.278	207	0.4	6.619	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	425	128	962	0.442	424	0.8	6.679	A
2	244	553	793	0.307	243	0.4	6.542	A
3	368	255	1185	0.310	367	0.4	4.398	A
4	249	388	719	0.346	248	0.5	7.638	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	521	157	950	0.548	519	1.2	8.323	A
2	298	676	732	0.408	297	0.7	8.263	A
3	450	312	1151	0.391	450	0.6	5.128	A
4	305	475	678	0.450	304	0.8	9.585	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	521	157	950	0.548	521	1.2	8.388	A
2	298	678	731	0.408	298	0.7	8.317	A
3	450	313	1150	0.391	450	0.6	5.142	A
4	305	476	678	0.450	305	0.8	9.652	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	425	129	962	0.442	427	0.8	6.748	A
2	244	556	791	0.308	245	0.4	6.597	A
3	368	256	1184	0.310	368	0.5	4.416	A
4	249	389	718	0.347	250	0.5	7.705	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	356	108	971	0.367	357	0.6	5.871	A
2	204	465	836	0.244	205	0.3	5.703	A

3	308	214	1210	0.255	308	0.3	3.996	A
4	209	326	748	0.279	209	0.4	6.683	A

2028 Base + Com, (Sat)

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Base + Com	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	243	100.000
2		✓	124	100.000
3		✓	284	100.000
4		✓	136	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1	2	3	4
	1	3	0	196	44
	2	47	0	47	30
	3	234	0	0	50
	4	76	0	60	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.27	4.95	0.4	A
2	0.15	4.48	0.2	A
3	0.25	3.76	0.3	A
4	0.20	5.89	0.2	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	183	45	1004	0.182	182	0.2	4.373	A
2	93	227	994	0.094	93	0.1	3.992	A
3	214	93	1296	0.165	213	0.2	3.323	A
4	102	213	807	0.127	102	0.1	5.102	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	218	54	1000	0.218	218	0.3	4.601	A
2	111	272	971	0.115	111	0.1	4.186	A
3	255	111	1285	0.199	255	0.2	3.495	A
4	122	255	787	0.155	122	0.2	5.411	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	268	66	995	0.269	267	0.4	4.942	A
2	137	333	940	0.145	136	0.2	4.477	A
3	313	136	1270	0.246	312	0.3	3.758	A
4	150	312	761	0.197	149	0.2	5.887	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	268	66	995	0.269	268	0.4	4.946	A
2	137	334	940	0.145	137	0.2	4.480	A
3	313	137	1270	0.246	313	0.3	3.758	A
4	150	313	761	0.197	150	0.2	5.893	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	218	54	1000	0.218	219	0.3	4.607	A
2	111	273	971	0.115	112	0.1	4.189	A
3	255	112	1285	0.199	256	0.2	3.498	A
4	122	256	787	0.155	122	0.2	5.421	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	183	45	1004	0.182	183	0.2	4.387	A
2	93	228	994	0.094	93	0.1	3.999	A

3	214	93	1295	0.165	214	0.2	3.331	A
4	102	214	806	0.127	103	0.1	5.118	A

2028 Base + Com + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	524	100.000
2		✓	195	100.000
3		✓	553	100.000
4		✓	273	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	0	0	453	71
	2	81	0	65	49
	3	436	0	0	117
	4	143	0	130	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	6	9
	2	4	0	5	4
	3	6	0	0	1
	4	6	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.63	10.58	1.7	B
2	0.31	7.39	0.4	A
3	0.52	6.46	1.1	A
4	0.50	11.83	1.0	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	394	97	936	0.421	392	0.7	6.574	A
2	147	489	821	0.179	146	0.2	5.329	A
3	416	150	1208	0.345	414	0.5	4.524	A
4	206	387	690	0.298	204	0.4	7.384	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	117	928	0.508	470	1.0	7.836	A
2	175	586	770	0.228	175	0.3	6.044	A
3	497	180	1190	0.418	496	0.7	5.185	A
4	245	464	654	0.375	245	0.6	8.784	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	577	142	917	0.629	574	1.6	10.424	B
2	215	717	703	0.305	214	0.4	7.348	A
3	609	221	1166	0.522	607	1.1	6.426	A
4	301	568	605	0.497	299	1.0	11.698	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	577	143	917	0.629	577	1.7	10.580	B
2	215	720	702	0.306	215	0.4	7.391	A
3	609	221	1166	0.522	609	1.1	6.464	A
4	301	569	605	0.497	301	1.0	11.829	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	118	928	0.508	474	1.0	7.969	A
2	175	591	768	0.228	176	0.3	6.085	A
3	497	181	1189	0.418	499	0.7	5.223	A
4	245	466	653	0.376	247	0.6	8.898	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	394	98	936	0.422	396	0.7	6.679	A
2	147	494	818	0.179	147	0.2	5.370	A

3	416	152	1207	0.345	417	0.5	4.563	A
4	206	390	688	0.299	206	0.4	7.475	A

2028 Base + Com + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.51	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	596	100.000
2		✓	295	100.000
3		✓	440	100.000
4		✓	322	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	3	0	500	93
	2	104	0	107	84
	3	356	0	0	84
	4	134	0	188	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	0	0	2	3
	2	5	0	4	6
	3	2	0	0	0
	4	1	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.71	13.18	2.4	B
2	0.51	11.39	1.0	B
3	0.42	5.41	0.7	A
4	0.54	11.70	1.1	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	140	957	0.469	445	0.9	6.980	A
2	222	586	777	0.286	221	0.4	6.446	A
3	331	212	1211	0.274	330	0.4	4.079	A
4	242	347	739	0.328	240	0.5	7.201	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	536	169	945	0.567	534	1.3	8.720	A
2	265	703	720	0.368	264	0.6	7.895	A
3	396	255	1185	0.334	395	0.5	4.553	A
4	289	416	706	0.410	289	0.7	8.604	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	656	206	929	0.706	652	2.3	12.810	B
2	325	858	643	0.505	323	1.0	11.194	B
3	484	311	1151	0.421	484	0.7	5.387	A
4	355	508	663	0.535	353	1.1	11.554	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	656	207	929	0.707	656	2.4	13.175	B
2	325	863	641	0.507	325	1.0	11.393	B
3	484	313	1150	0.421	484	0.7	5.408	A
4	355	510	662	0.536	354	1.1	11.701	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	536	170	945	0.567	540	1.3	8.981	A
2	265	710	716	0.370	267	0.6	8.041	A
3	396	257	1184	0.334	396	0.5	4.577	A
4	289	418	705	0.410	291	0.7	8.729	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	449	142	957	0.469	450	0.9	7.137	A
2	222	593	774	0.287	223	0.4	6.542	A

3	331	215	1209	0.274	332	0.4	4.103	A
4	242	349	737	0.329	243	0.5	7.300	A

2028 Base + Com + Dev, (Sat)

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 Base + Com + Dev	(Sat)	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	351	100.000
2		✓	150	100.000
3		✓	313	100.000
4		✓	170	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1	2	3	4
From	1	3	0	304	44
	2	47	0	73	30
	3	263	0	0	50
	4	76	0	94	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.39	6.00	0.6	A
2	0.19	5.15	0.2	A
3	0.27	3.89	0.4	A
4	0.25	6.43	0.3	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	70	1001	0.264	263	0.4	4.870	A
2	113	333	944	0.120	112	0.1	4.327	A
3	236	93	1296	0.182	235	0.2	3.390	A
4	128	235	798	0.160	127	0.2	5.365	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	316	84	995	0.317	315	0.5	5.294	A
2	135	400	910	0.148	135	0.2	4.642	A
3	281	111	1285	0.219	281	0.3	3.586	A
4	153	281	776	0.197	153	0.2	5.774	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	103	986	0.392	386	0.6	5.985	A
2	165	489	864	0.191	165	0.2	5.146	A
3	345	136	1270	0.271	344	0.4	3.885	A
4	187	344	747	0.251	187	0.3	6.425	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	103	986	0.392	386	0.6	6.000	A
2	165	490	864	0.191	165	0.2	5.151	A
3	345	137	1270	0.271	345	0.4	3.889	A
4	187	345	747	0.251	187	0.3	6.435	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	316	85	994	0.317	316	0.5	5.312	A
2	135	401	909	0.148	135	0.2	4.653	A
3	281	112	1285	0.219	282	0.3	3.592	A
4	153	282	776	0.197	153	0.2	5.785	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	71	1000	0.264	265	0.4	4.895	A
2	113	336	942	0.120	113	0.1	4.342	A

3	236	93	1295	0.182	236	0.2	3.400	A
4	128	236	797	0.161	128	0.2	5.386	A

Appendix 24

Linsig Output Files (excluding Canal Way Junction with Mitigation)

Basic Results Summary

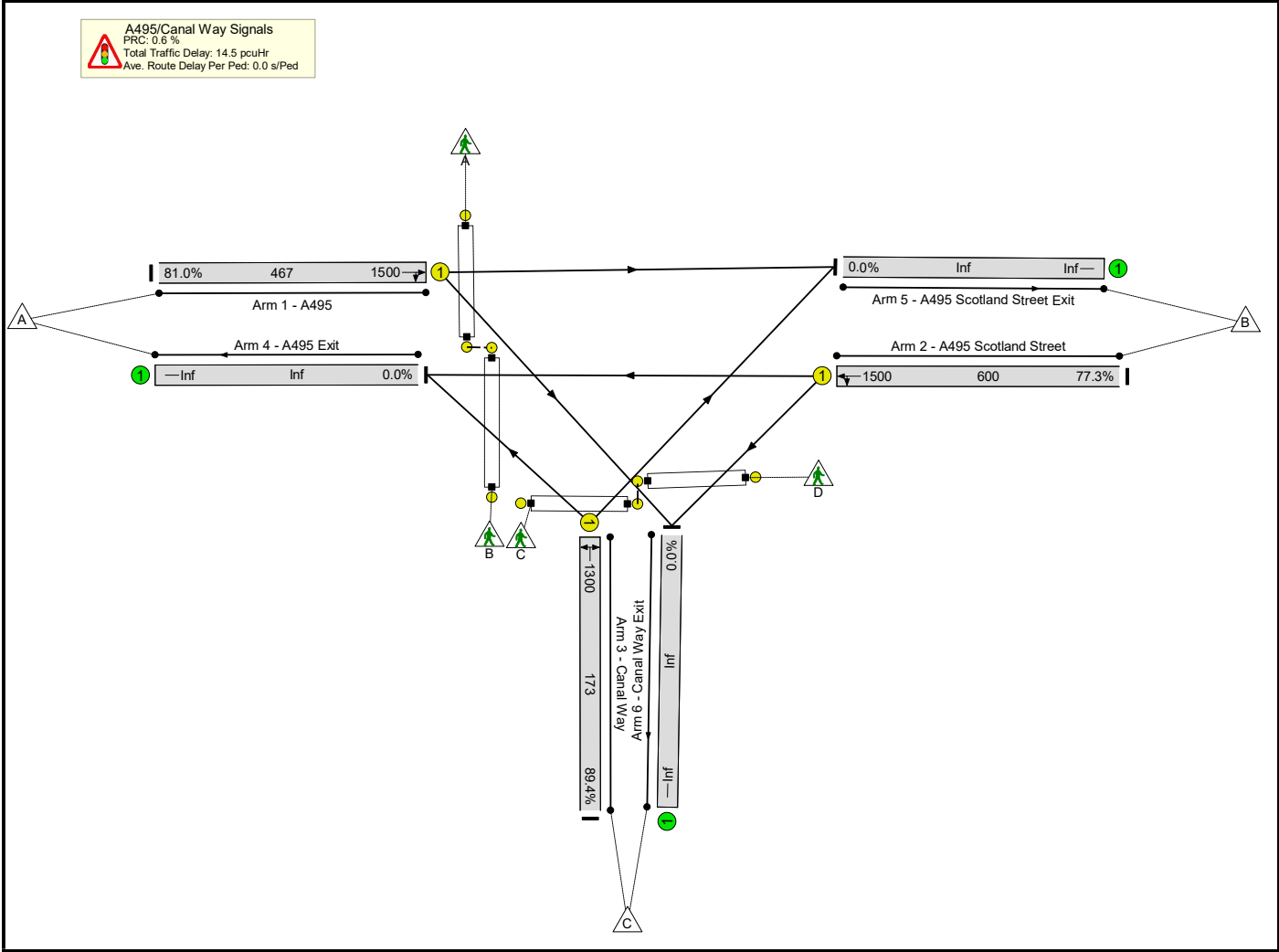
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	A495-Canal Way Signals.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2023 Base AM' (FG1: '2023 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

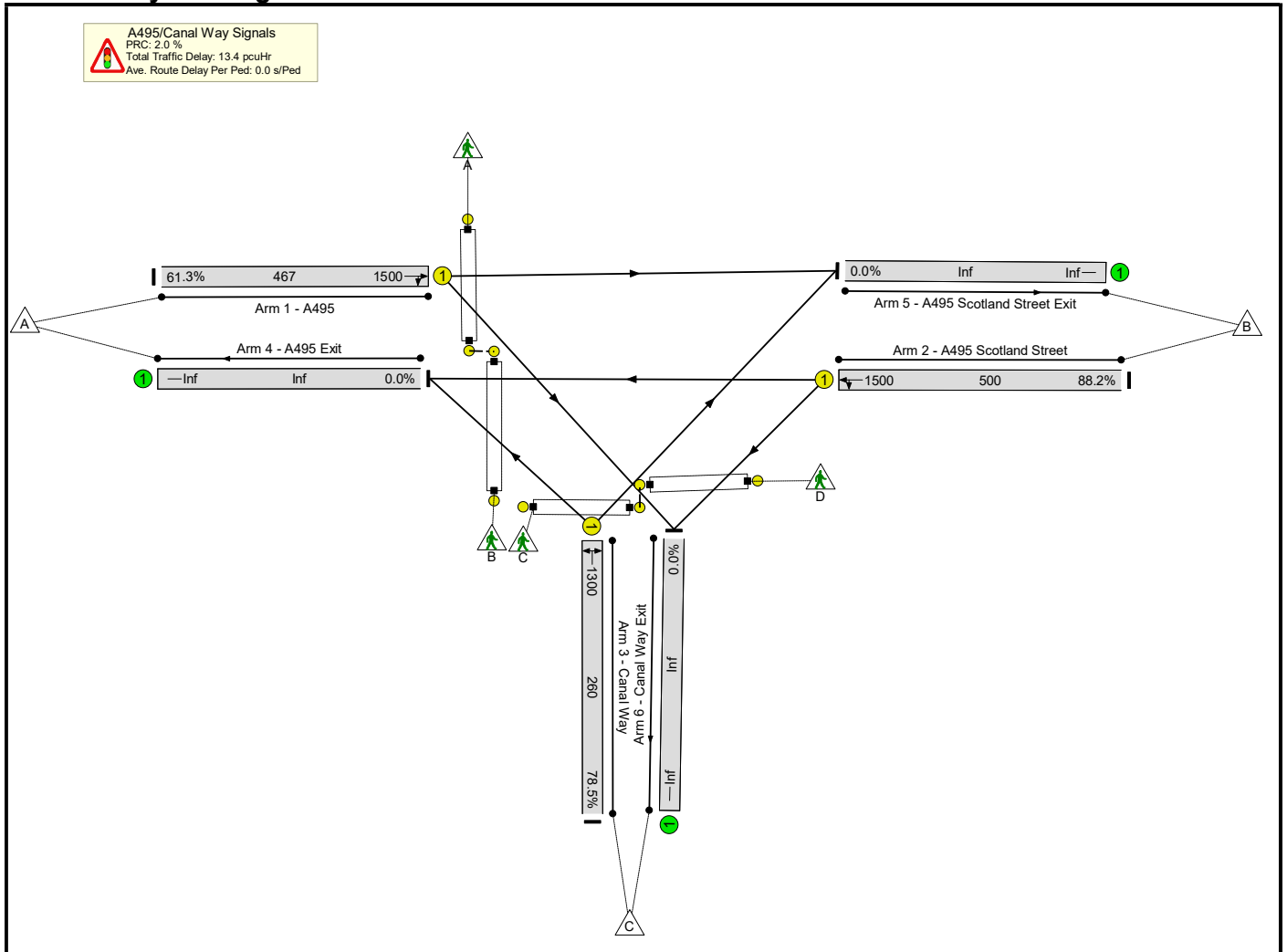


Network Results

Basic Results Summary

Scenario 2: '2023 Base PM' (FG2: '2023 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



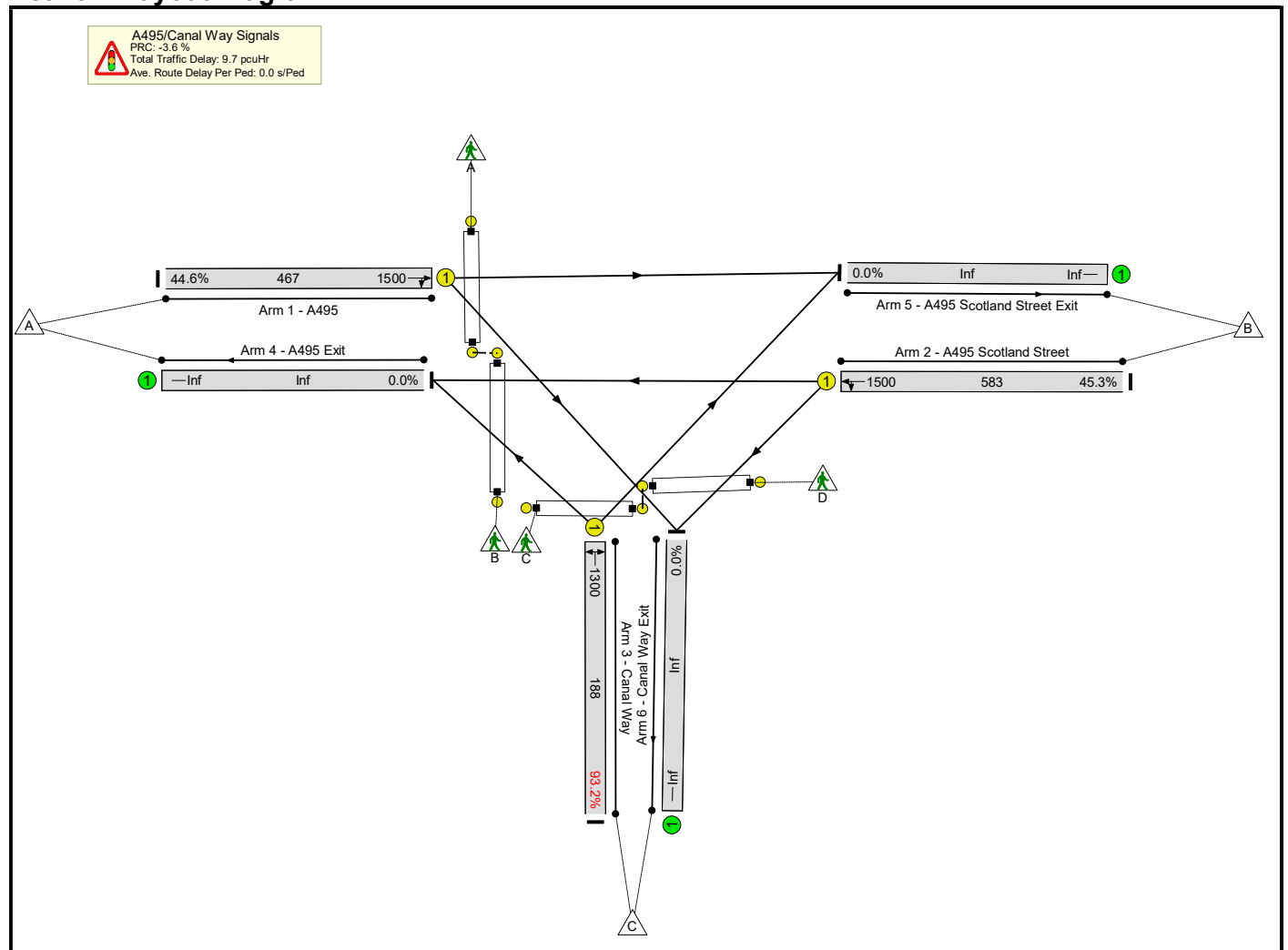
Network Results

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	-	-	-		-	-	-	-	-	-	88.2%	0	0	0	13.4	-	-
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	88.2%	0	0	0	13.4	-	-
1/1	A495 Ahead Right	U	C		1	27	-	286	1500	467	61.3%	-	-	-	2.9	36.3	6.8
2/1	A495 Scotland Street Ahead Left	U	A		1	29	-	441	1500	500	88.2%	-	-	-	6.8	55.7	13.6
3/1	Canal Way Left Right	U	B		1	17	-	204	1300	260	78.5%	-	-	-	3.7	64.5	6.5
Ped Link: P1	P1	-	D		1	51	-	0	-	40800	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	P2	-	E		1	23	-	0	-	18400	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	P3	-	F		1	60	-	0	-	48000	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P4	P4	-	G		1	13	-	0	-	10400	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 2.0 Total Delay for Signalled Lanes (pcuHr): 13.36 Cycle Time (s): 90 PRC Over All Lanes (%): 2.0 Total Delay Over All Lanes(pcuHr): 13.36																	

Basic Results Summary

Scenario 3: '2023 Base Saturday' (FG3: '2023 Base Saturday', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

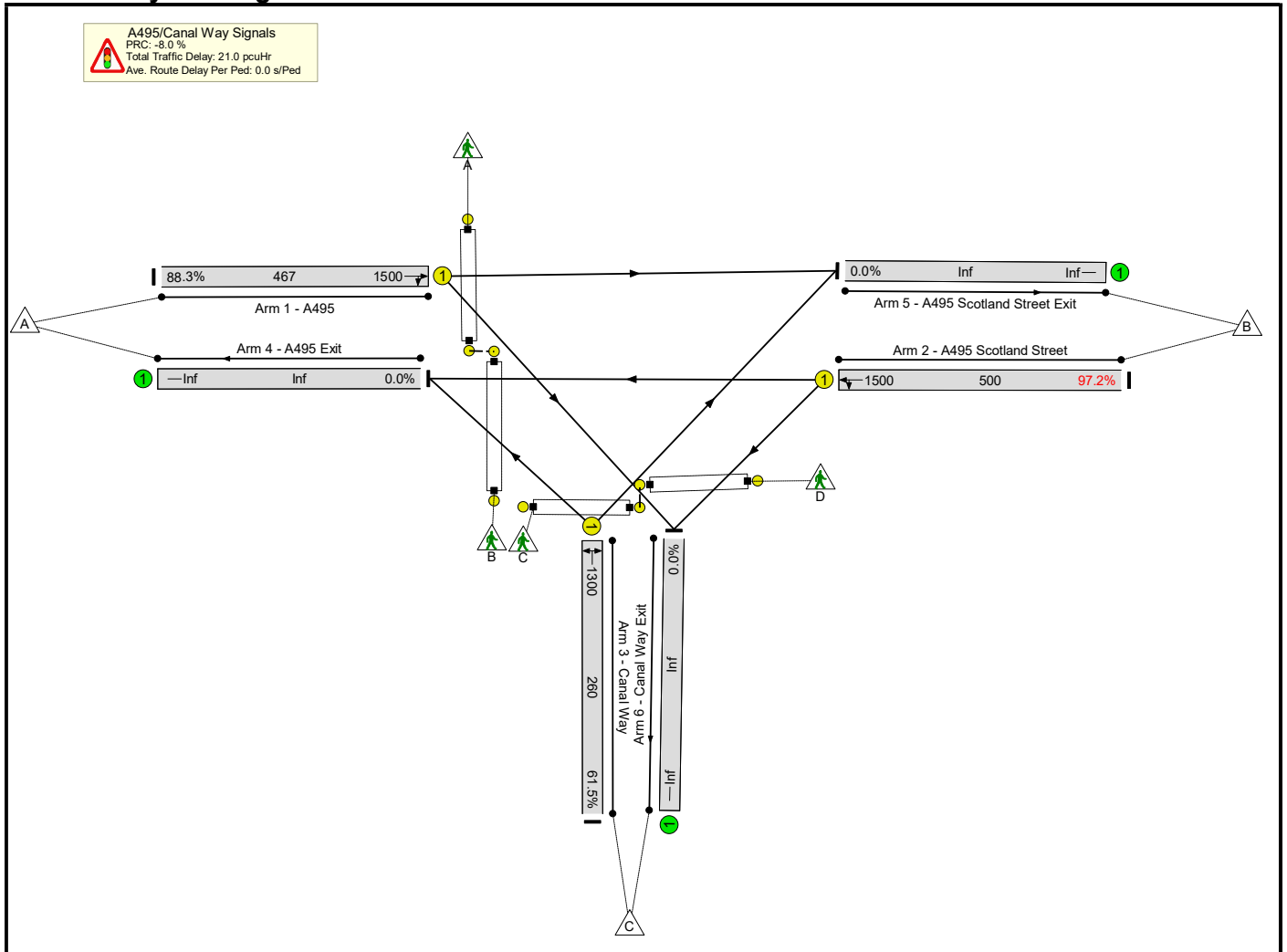


Network Results

Basic Results Summary

Scenario 4: '2028 Base + Com AM' (FG4: '2028 Base + Com AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

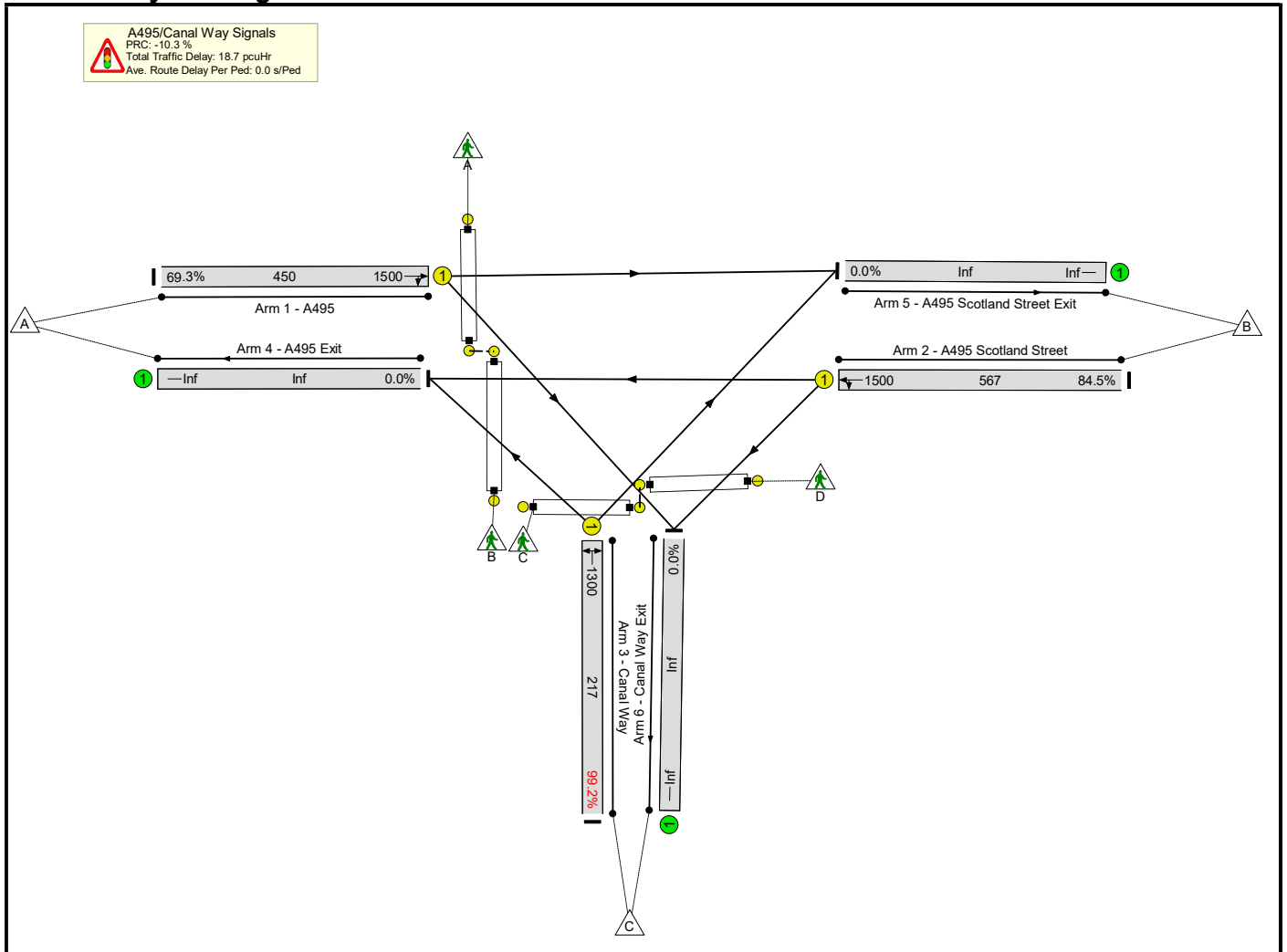


Network Results

Basic Results Summary

Scenario 5: '2028 Base + Com PM' (FG5: '2028 Base + Com PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

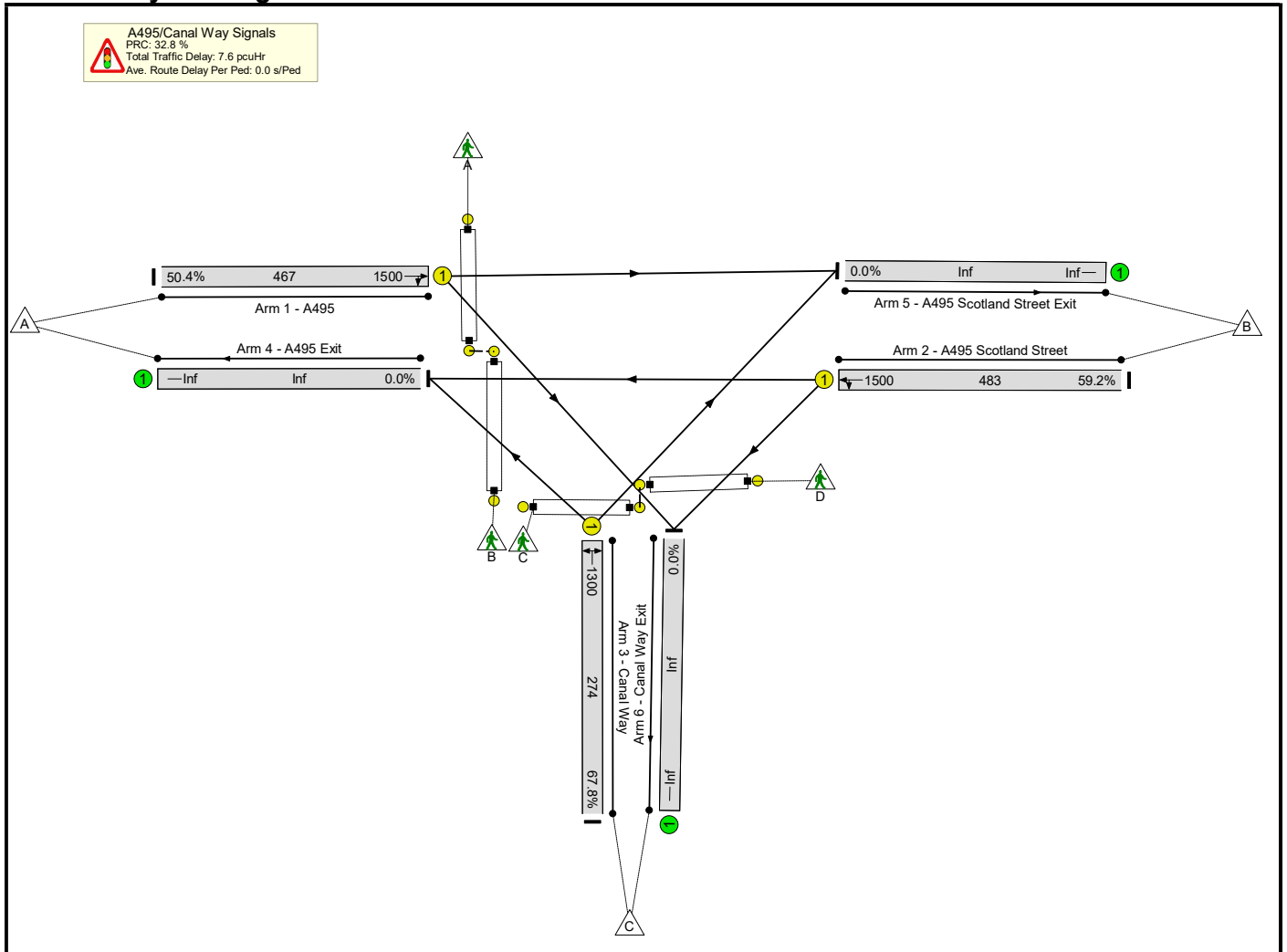


Network Results

Basic Results Summary

Scenario 6: '2028 Base + Com Saturday' (FG6: '2028 Base + Com Saturday', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

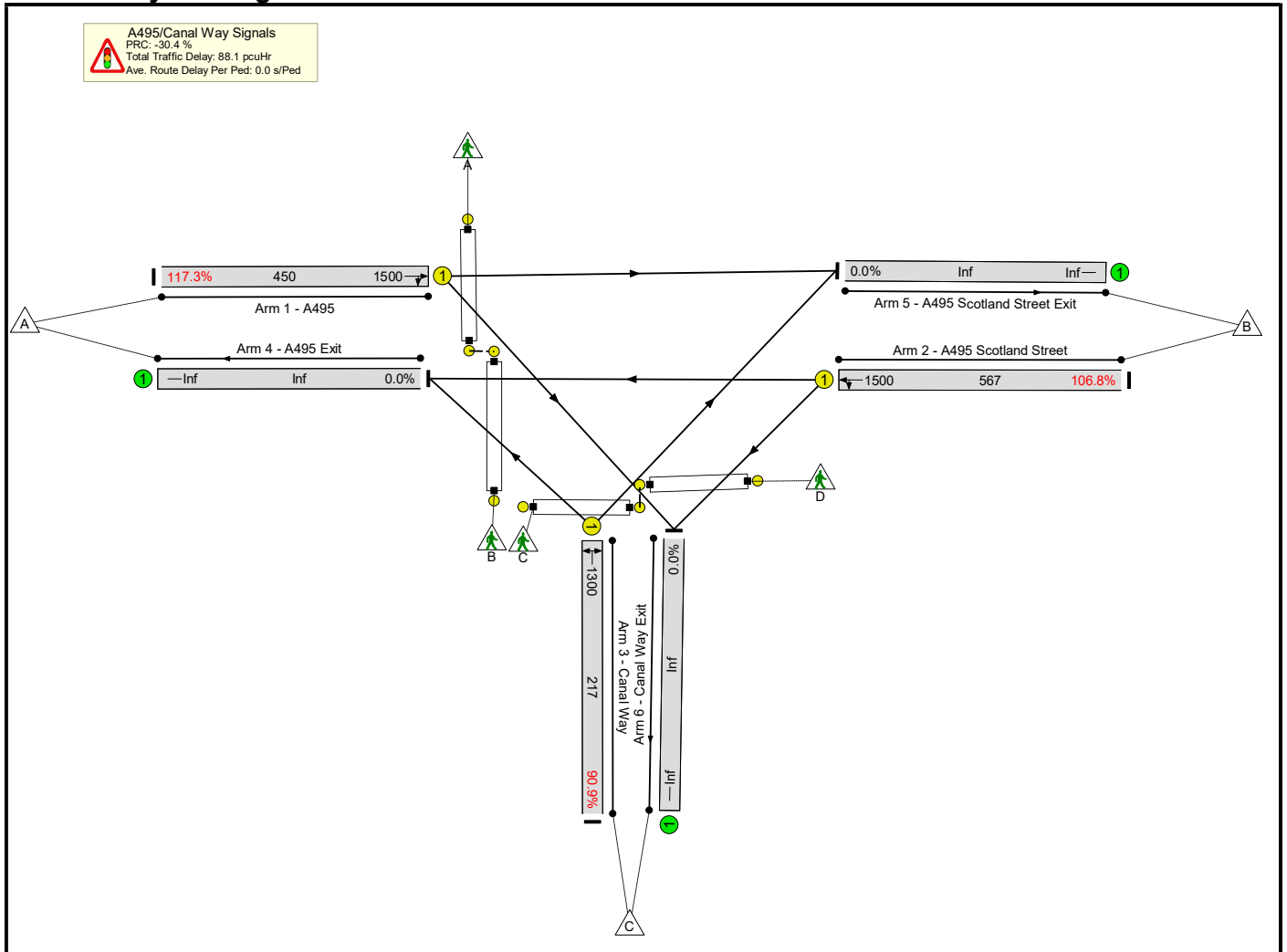


Network Results

Basic Results Summary

Scenario 7: '2028 Base + Com + Dev AM' (FG7: '2028 Base + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

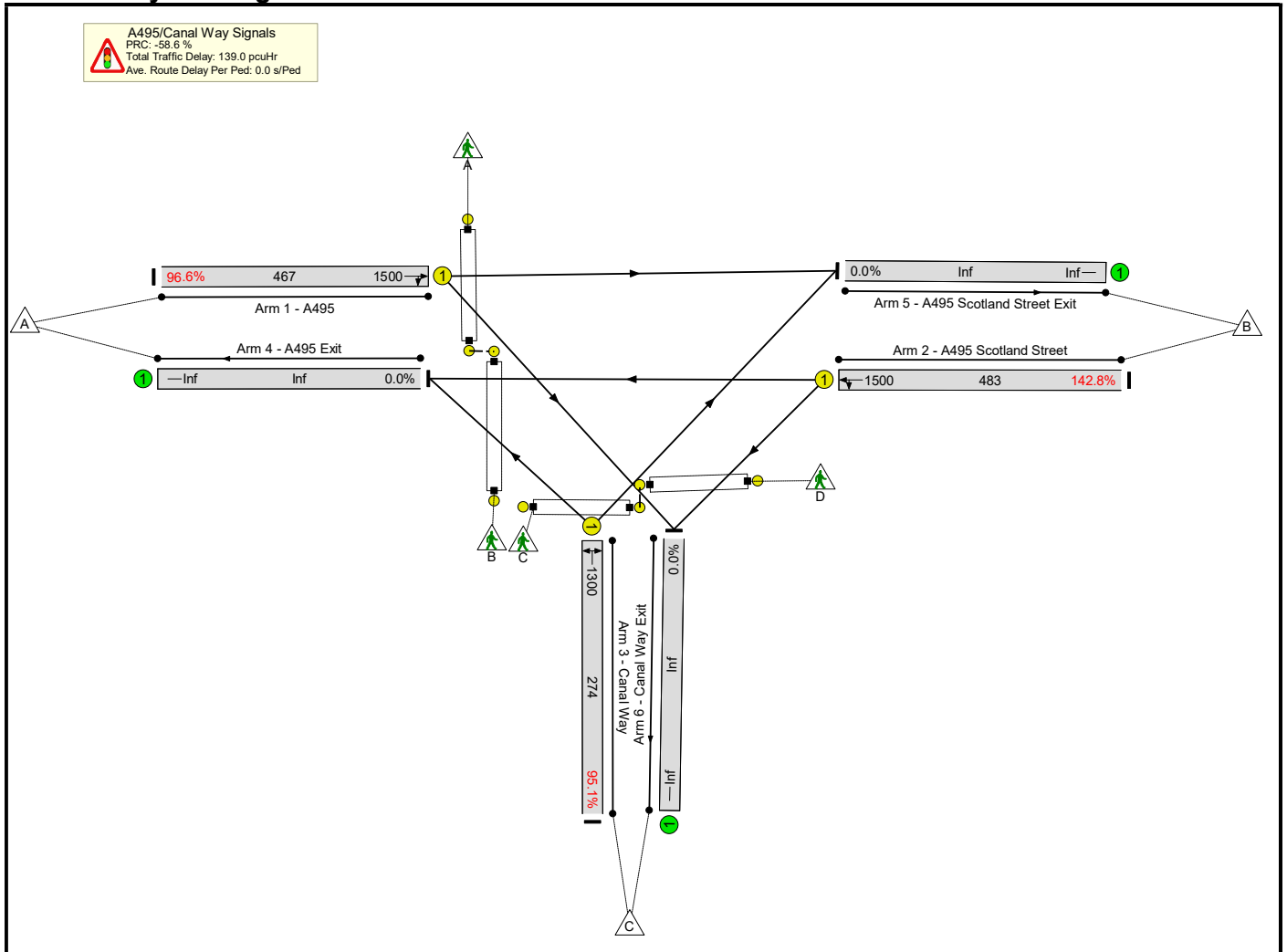


Network Results

Basic Results Summary

Scenario 8: '2028 Base + Com + Dev PM' (FG8: '2028 Base + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



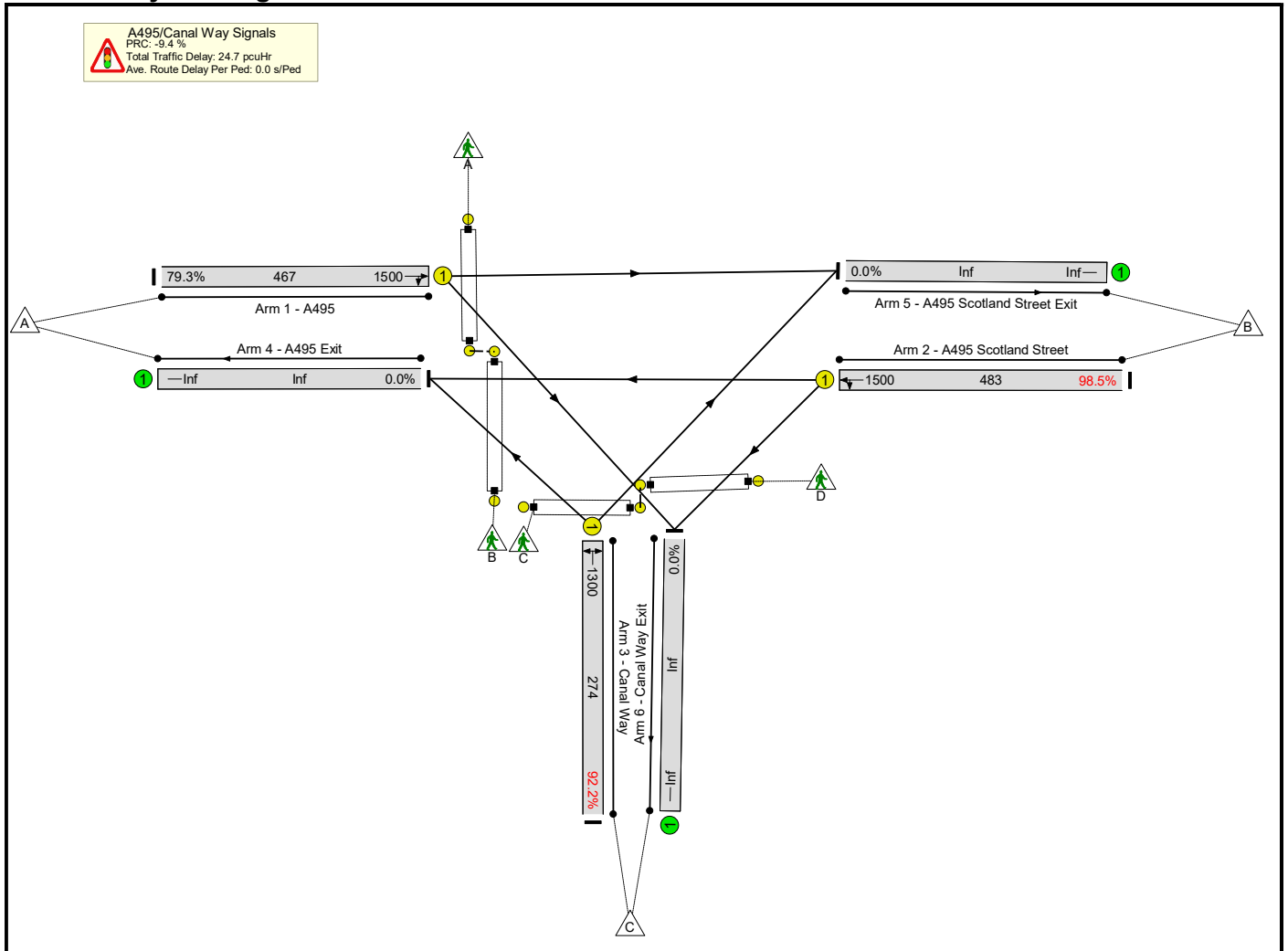
Network Results

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	-	-	-		-	-	-	-	-	-	142.8%	0	0	0	139.0	-	-
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	142.8%	0	0	0	139.0	-	-
1/1	A495 Ahead Right	U	C		1	27	-	451	1500	467	96.6%	-	-	-	11.2	89.6	18.4
2/1	A495 Scotland Street Ahead Left	U	A		1	28	-	690	1500	483	142.8%	-	-	-	119.8	625.2	127.4
3/1	Canal Way Left Right	U	B		1	18	-	261	1300	274	95.1%	-	-	-	7.9	109.4	11.8
Ped Link: P1	P1	-	D		1	51	-	0	-	40800	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	P2	-	E		1	23	-	0	-	18400	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	P3	-	F		1	59	-	0	-	47200	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P4	P4	-	G		1	14	-	0	-	11200	0.0%	-	-	-	0.0	0.0	0.0
C1																	
PRC for Signalled Lanes (%):							-58.6	Total Delay for Signalled Lanes (pcuHr):					138.99	Cycle Time (s): 90			
PRC Over All Lanes (%):							-58.6	Total Delay Over All Lanes(pcuHr):					138.99				

Basic Results Summary

Scenario 9: '2028 Base + Com + Dev Saturday' (FG9: '2028 Base + Com + Dev Saturday', Plan 1: 'Network Control Plan 1')

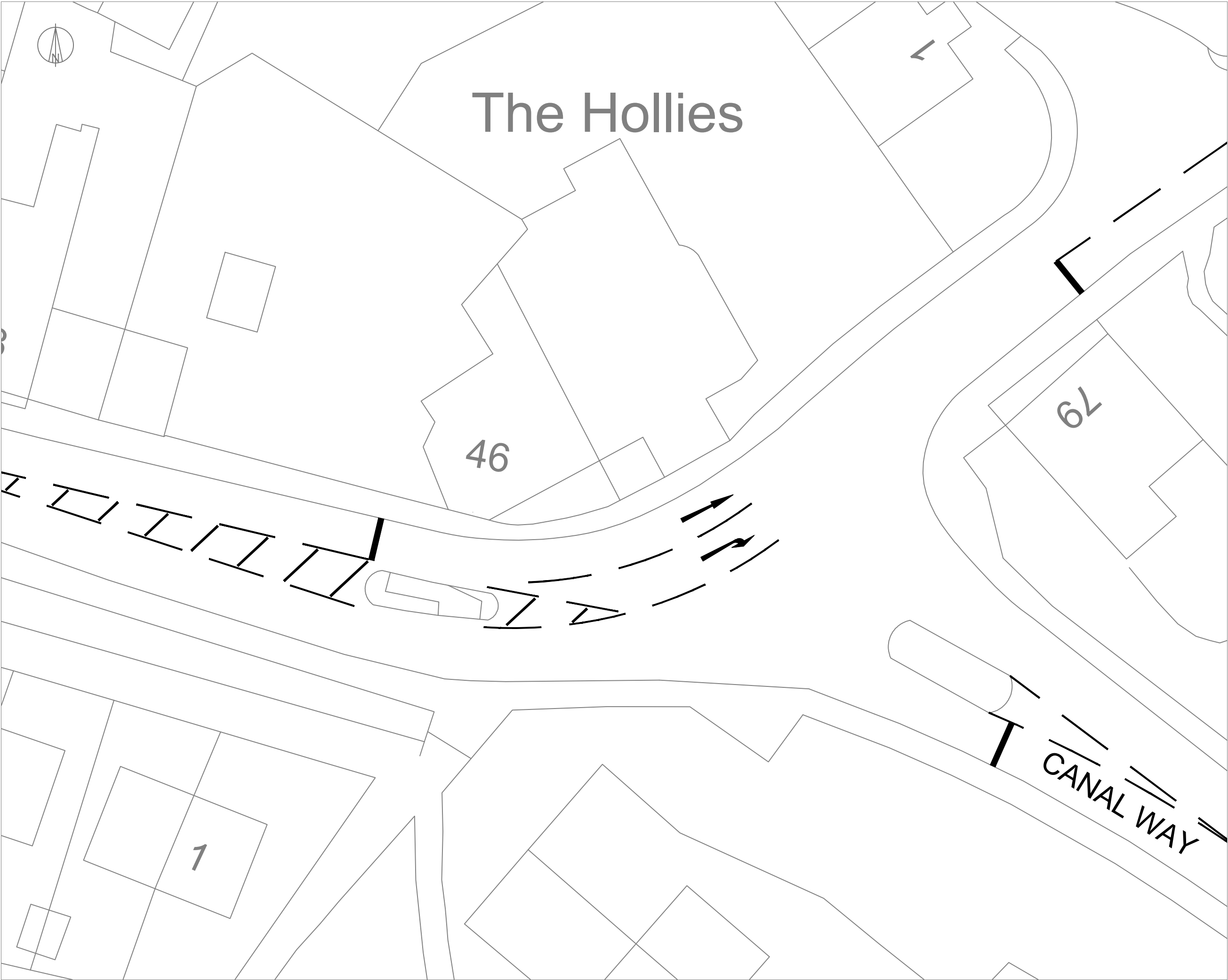
Network Layout Diagram



Network Results

Appendix 25

Mitigation at Canal Way



NOTES:
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100056454.

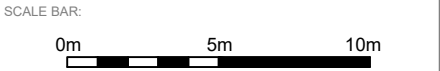
-	-	--	--,--
ISSUE	REASON FOR REVISION	BY	DATE

PROJECT:
**CANALSIDE
ELLSEMERE**

CLIENT:
**FORMAL
INVESTMENTS**

PROJECT REF:	DRAWING NUMBER:	SCALE (AT A3):
2314	02	1:250

SHEET NUMBER:
SHEET NUMBER 1 OF 1



Highgate *Transportation*
www.highgatetransportation.co.uk
First Floor, 43-45 Park Street
Bristol BS1 5NL
01179 349 121
© Highgate Transportation Limited

TITLE:
**PROPOSED RIGHT TURN LANE AT
CANAL WAY / SCOTLAND STREET**

DATE:	DRAWN BY:	CHECKED:
28.04.2023	BGS	FB

Appendix 26

Linsig Output Files for Canal Way Junction with Mitigation

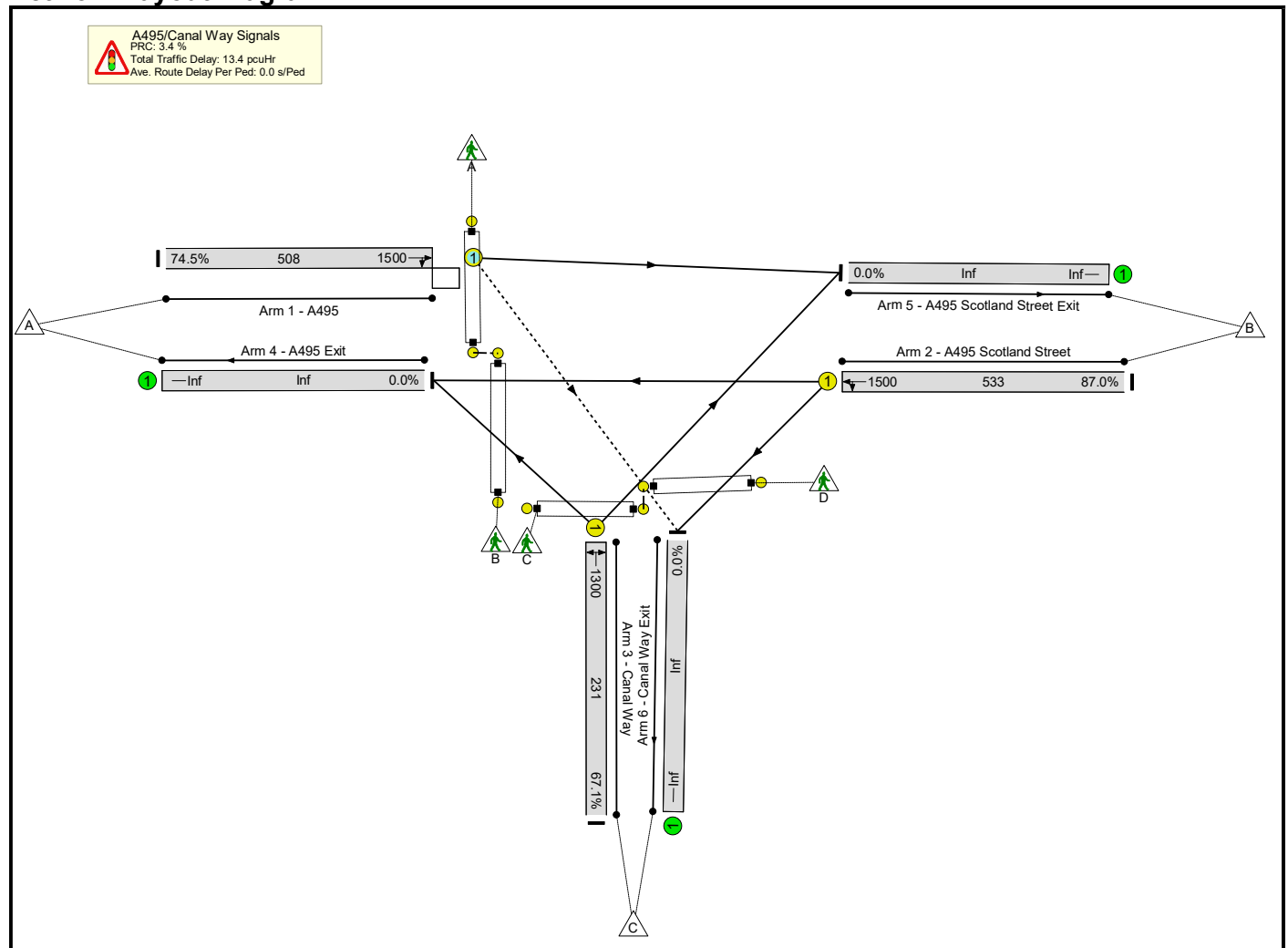
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	230412 A495-Canal Way Signals_MG.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2023 Base AM' (FG1: '2023 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



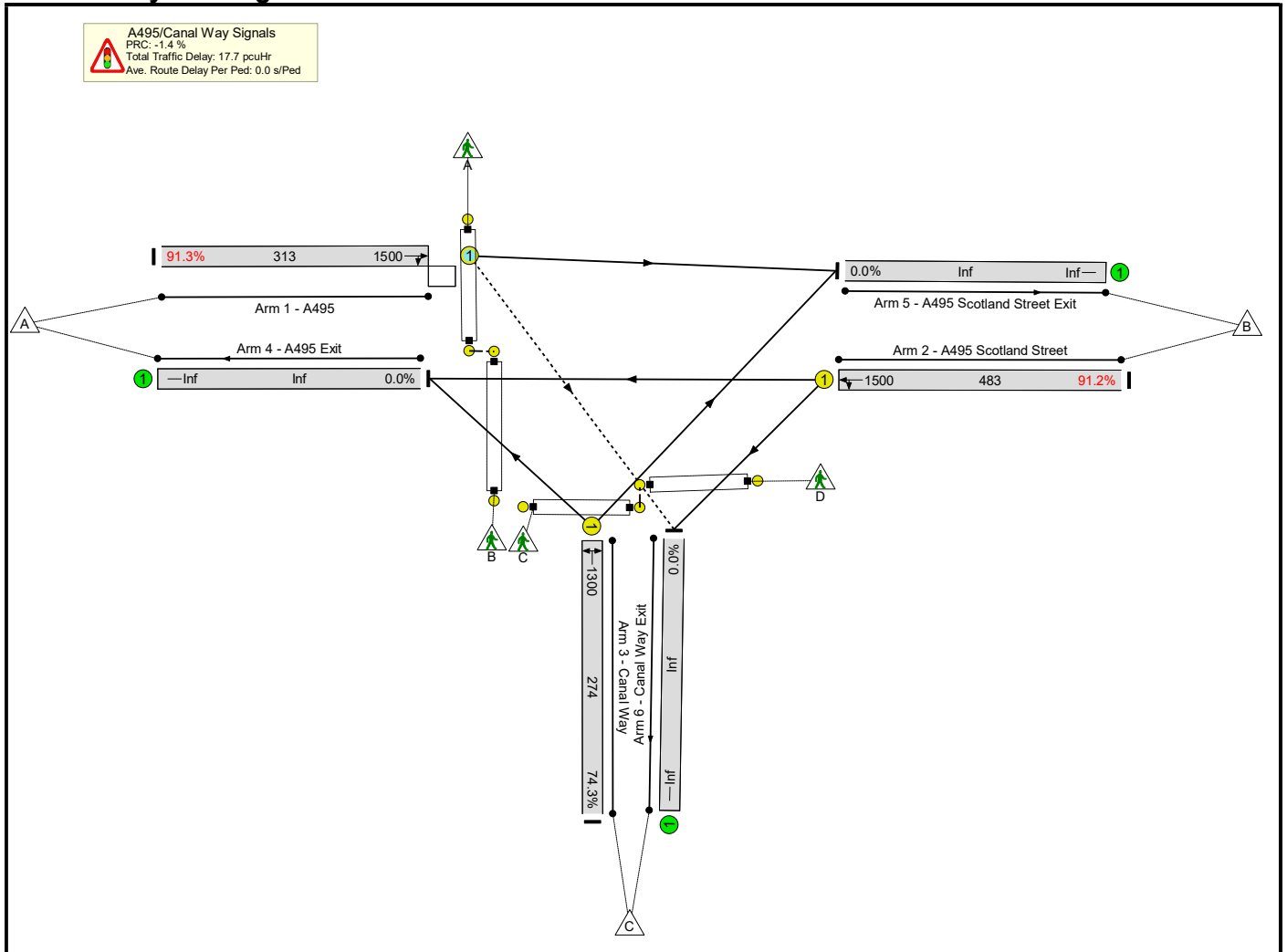
Network Results

[illegible]

Basic Results Summary

Scenario 2: '2023 Base PM' (FG2: '2023 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



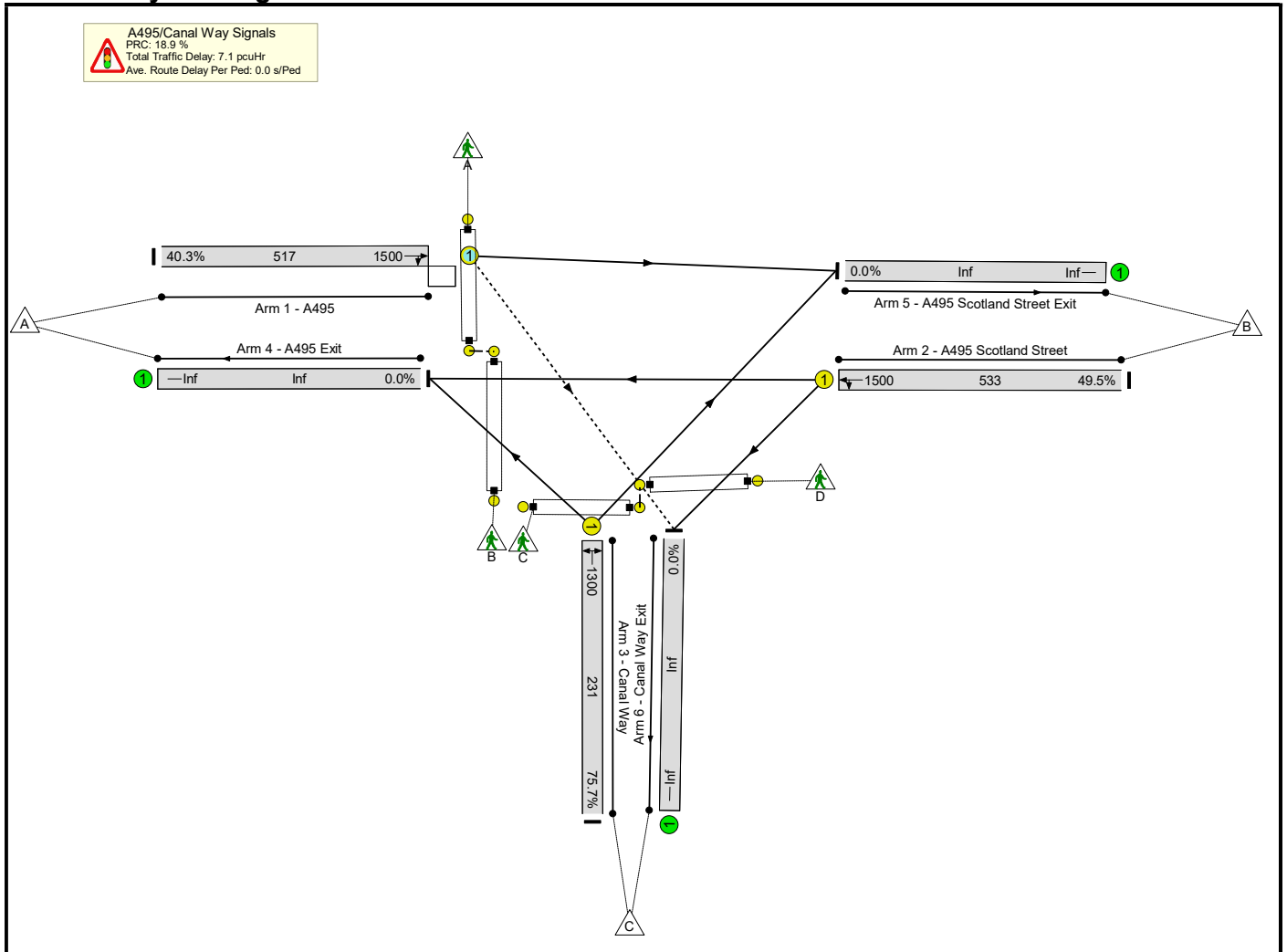
Network Results

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)	Item
Network	-	-	-		-	-	-	-	-	-	91.3%	37	0	36	17.7	-	-	Network
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	91.3%	37	0	36	17.7	-	-	A495/Canal Way Signals
1/1	A495 Ahead Right	O	C		1	27	-	286	1500	313	91.3%	37	0	36	6.5	82.0	10.1	1/1
2/1	A495 Scotland Street Ahead Left	U	A		1	28	-	441	1500	483	91.2%	-	-	-	7.9	64.6	14.9	2/1
3/1	Canal Way Left Right	U	B		1	18	-	204	1300	274	74.3%	-	-	-	3.3	57.8	6.2	3/1
Ped Link: P1	P1	-	D		1	51	-	0	-	40800	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P1
Ped Link: P2	P2	-	E		1	23	-	0	-	18400	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P2
Ped Link: P3	P3	-	F		1	59	-	0	-	47200	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P3
Ped Link: P4	P4	-	G		1	47	-	0	-	37600	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P4
C1 PRC for Signalled Lanes (%): -1.4 Total Delay for Signalled Lanes (pcuHr): 17.70 Cycle Time (s): 90 PRC Over All Lanes (%): -1.4 Total Delay Over All Lanes(pcuHr): 17.70																		

Basic Results Summary

Scenario 3: '2023 Base Saturday' (FG3: '2023 Base Saturday', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

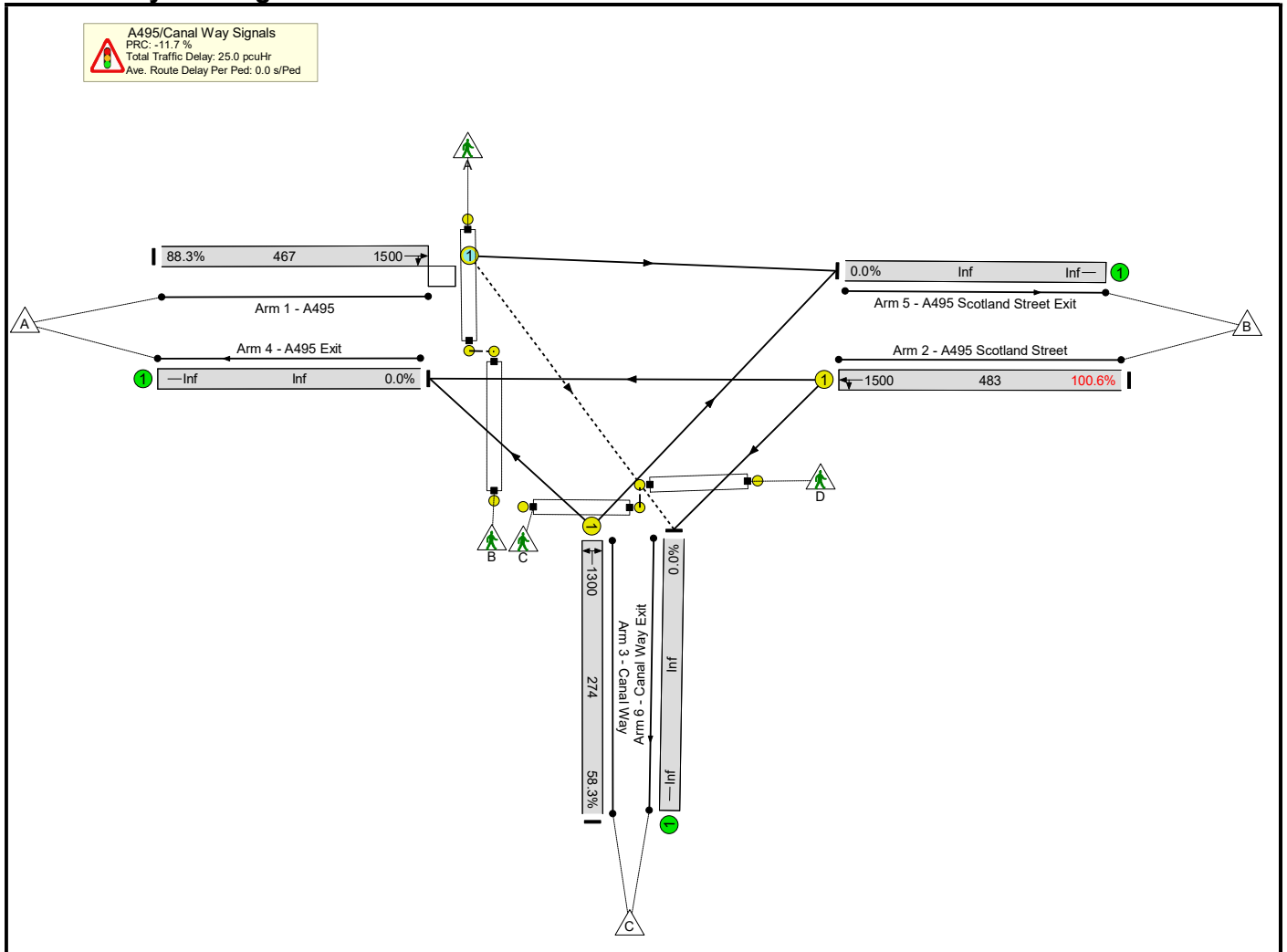


Network Results

Basic Results Summary

Scenario 4: '2028 Base + Com AM' (FG4: '2028 Base + Com AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



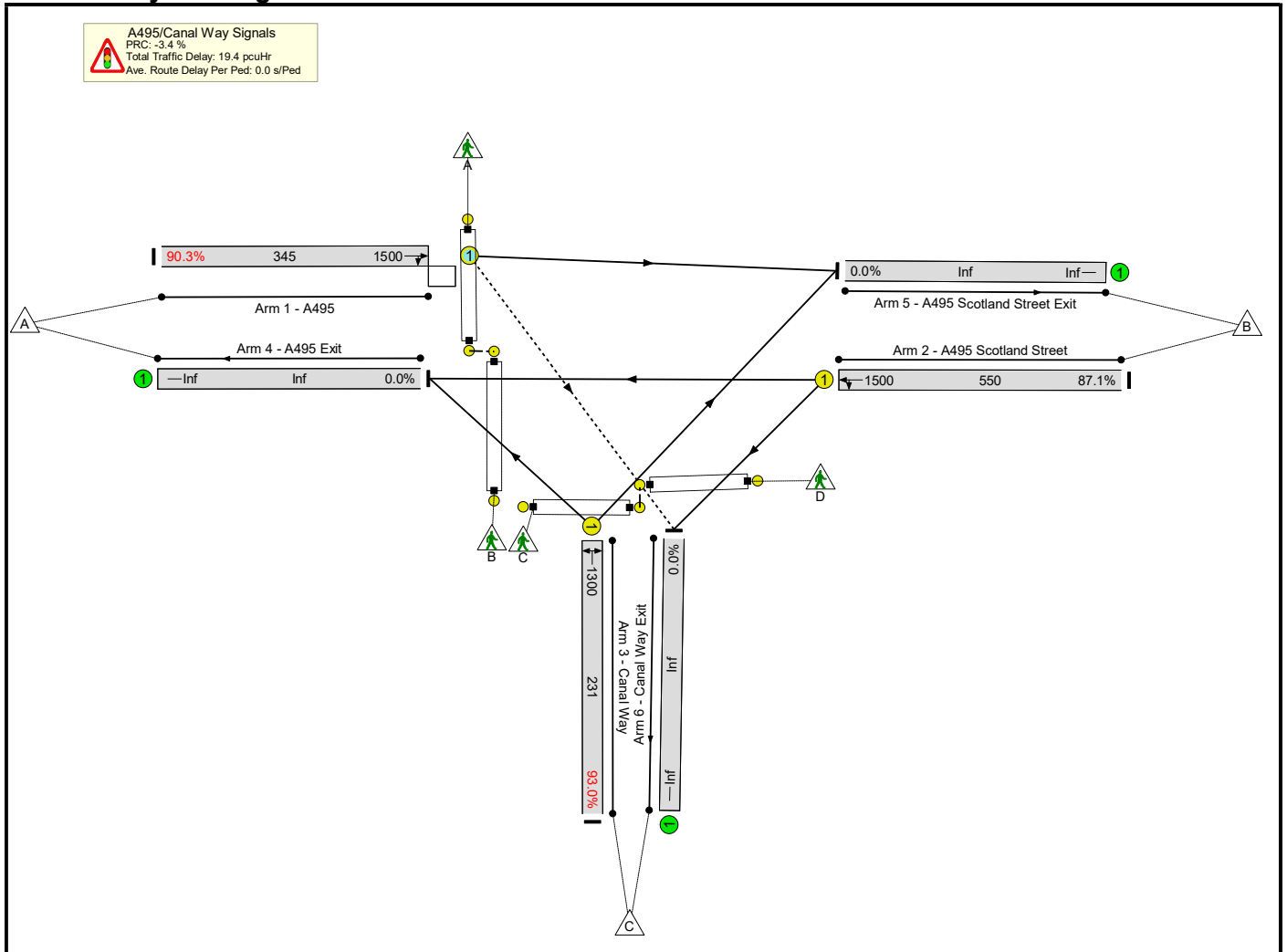
Network Results

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)	Item
Network	-	-	-		-	-	-	-	-	-	100.6%	0	0	49	25.0	-	-	Network
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	100.6%	0	0	49	25.0	-	-	A495/Canal Way Signals
1/1	A495 Ahead Right	O	C		1	27	-	412	1500	467	88.3%	0	0	49	7.0	60.9	13.1	1/1
2/1	A495 Scotland Street Ahead Left	U	A		1	28	-	486	1500	483	100.6%	-	-	-	15.9	118.1	23.9	2/1
3/1	Canal Way Left Right	U	B		1	18	-	160	1300	274	58.3%	-	-	-	2.1	47.5	4.2	3/1
Ped Link: P1	P1	-	D		1	51	-	0	-	40800	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P1
Ped Link: P2	P2	-	E		1	23	-	0	-	18400	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P2
Ped Link: P3	P3	-	F		1	59	-	0	-	47200	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P3
Ped Link: P4	P4	-	G		1	47	-	0	-	37600	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P4
C1 PRC for Signalled Lanes (%): -11.7 Total Delay for Signalled Lanes (pcuHr): 25.03 Cycle Time (s): 90 PRC Over All Lanes (%): -11.7 Total Delay Over All Lanes(pcuHr): 25.03																		

Basic Results Summary

Scenario 5: '2028 Base + Com PM' (FG5: '2028 Base + Com PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

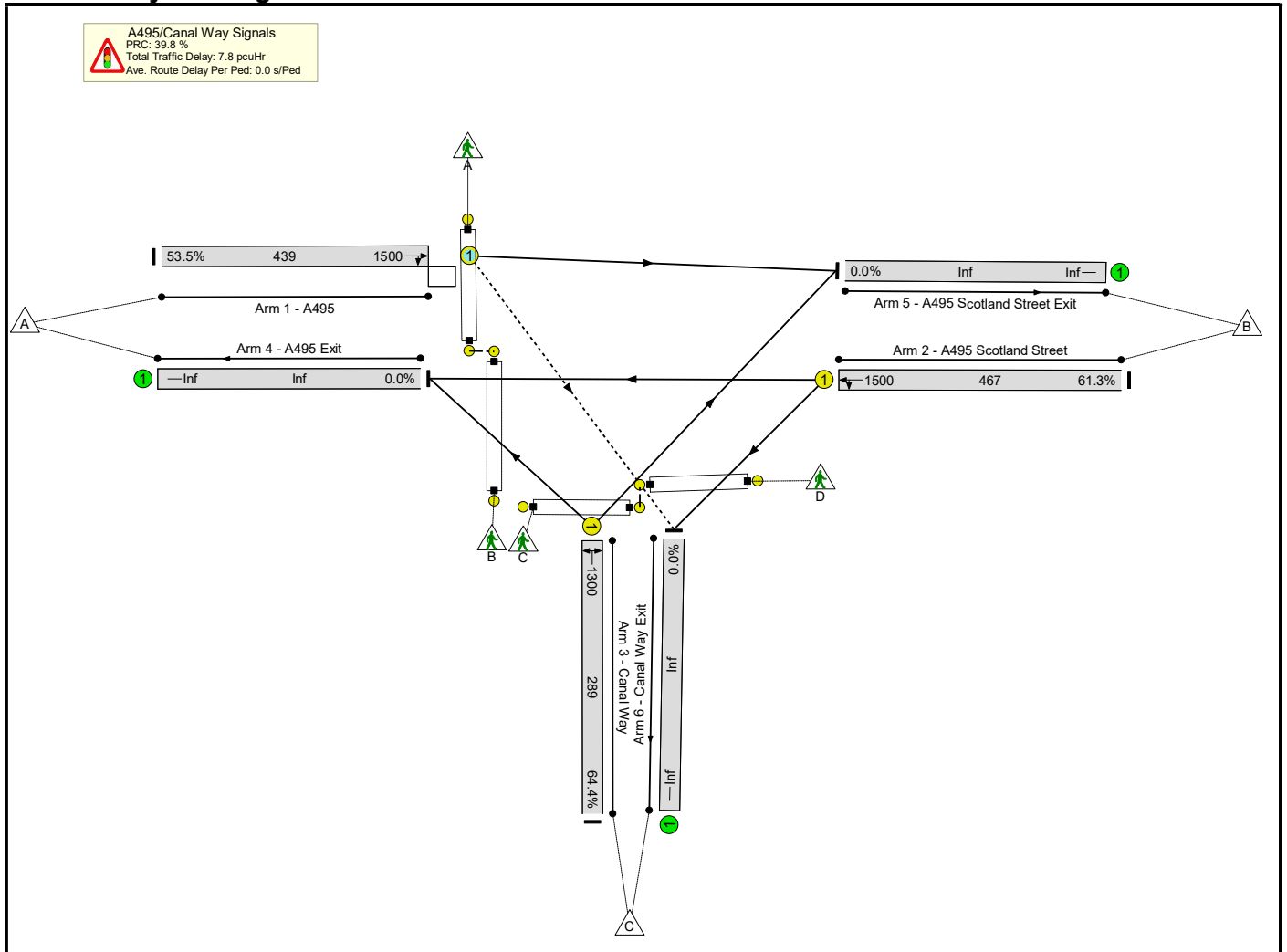


Network Results

Basic Results Summary

Scenario 6: '2028 Base + Com Saturday' (FG6: '2028 Base + Com Saturday', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



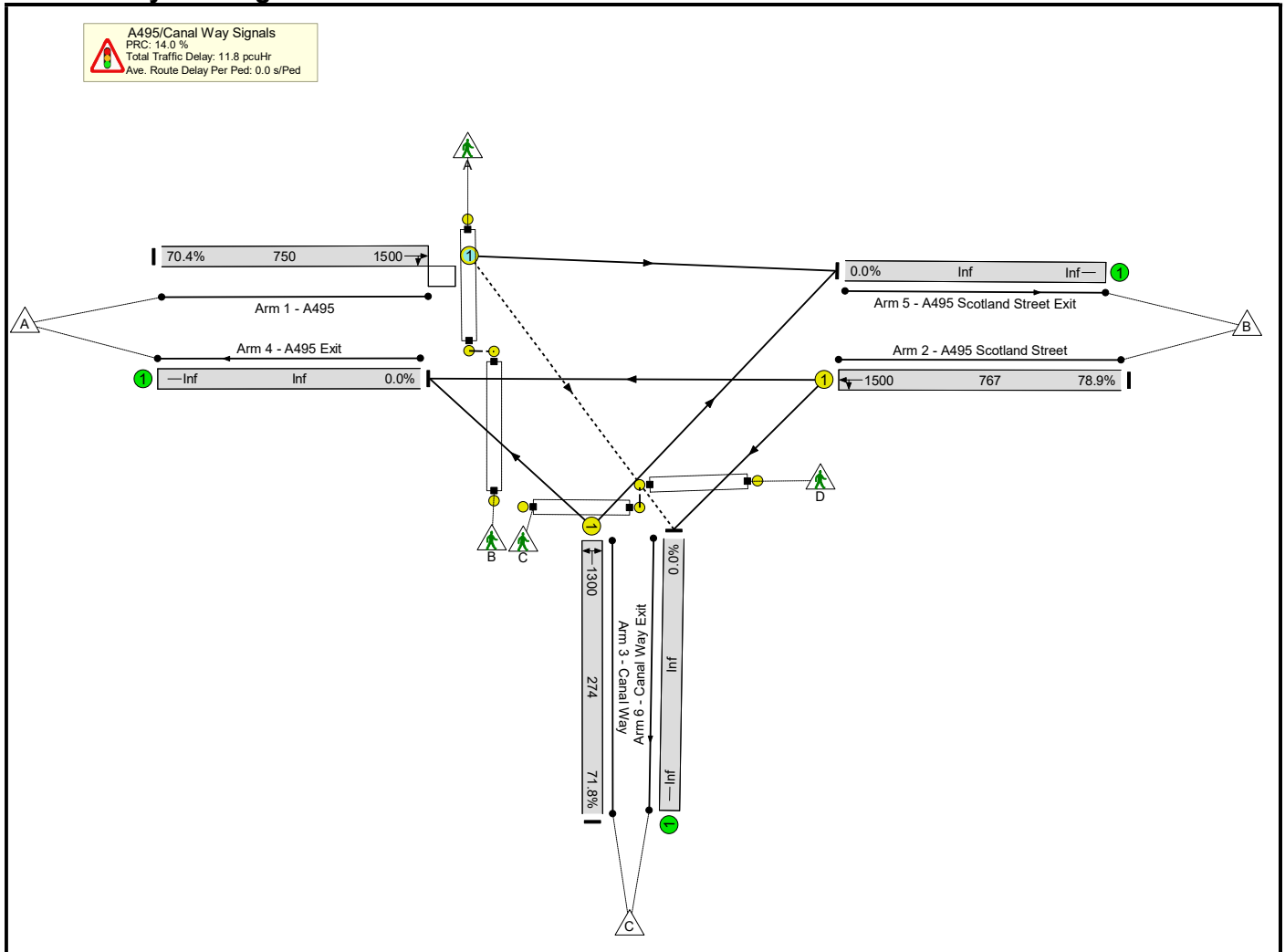
Network Results

C1	PRC for Signalled Lanes (%):	39.8	Total Delay for Signalled Lanes (pcuHr):	7.82	Cycle Time (s):	90
	PRC Over All Lanes (%):	39.8	Total Delay Over All Lanes(pcuHr):	7.82		

Basic Results Summary

Scenario 7: '2028 Base + Com + Dev AM' (FG7: '2028 Base + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



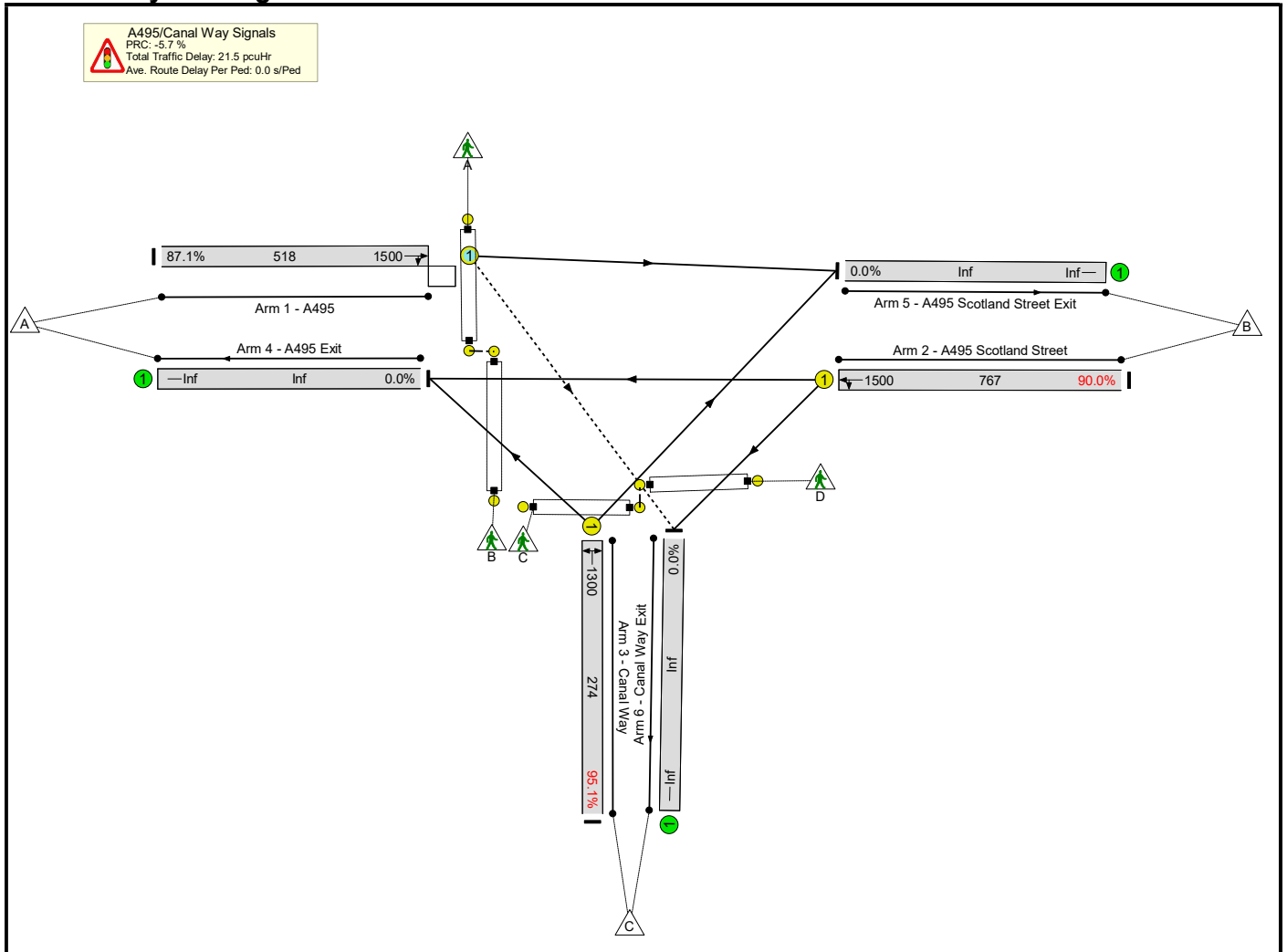
Network Results

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)	Item
Network	-	-	-		-	-	-	-	-	-	78.9%	49	0	0	11.8	-	-	Network
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	78.9%	49	0	0	11.8	-	-	A495/Canal Way Signals
1/1	A495 Ahead Right	O	C		1	44	-	528	1500	750	70.4%	49	0	0	3.9	26.9	11.3	1/1
2/1	A495 Scotland Street Ahead Left	U	A		1	45	-	605	1500	767	78.9%	-	-	-	4.9	28.9	14.1	2/1
3/1	Canal Way Left Right	U	B		1	18	-	197	1300	274	71.8%	-	-	-	3.0	55.5	5.8	3/1
Ped Link: P1	P1	-	D		1	34	-	0	-	27200	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P1
Ped Link: P2	P2	-	E		1	6	-	0	-	4800	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P2
Ped Link: P3	P3	-	F		1	59	-	0	-	47200	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P3
Ped Link: P4	P4	-	G		1	30	-	0	-	24000	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P4
C1 PRC for Signalled Lanes (%): 14.0 Total Delay for Signalled Lanes (pcuHr): 11.84 Cycle Time (s): 90 PRC Over All Lanes (%): 14.0 Total Delay Over All Lanes(pcuHr): 11.84																		

Basic Results Summary

Scenario 8: '2028 Base + Com + Dev PM' (FG8: '2028 Base + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



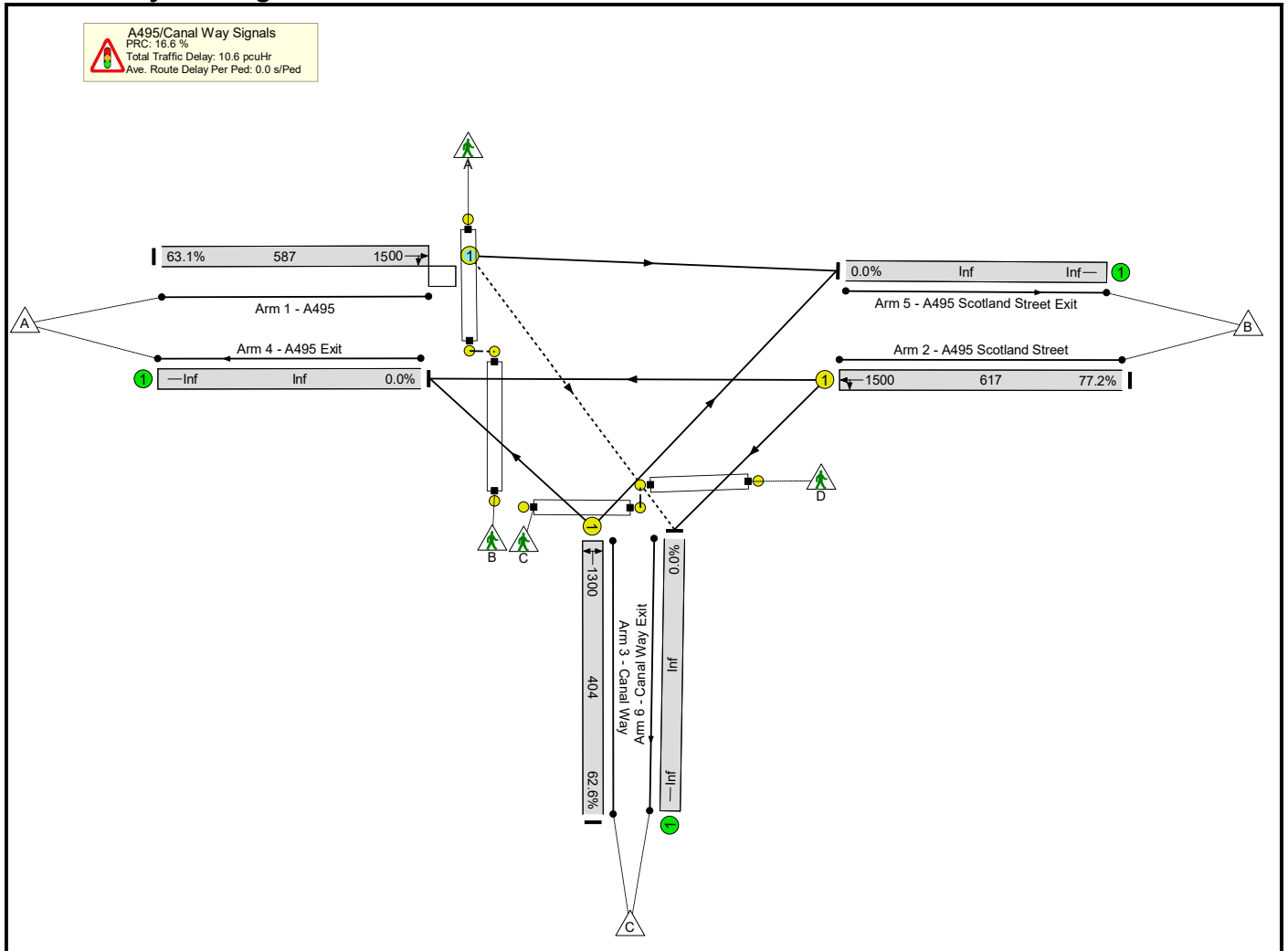
Network Results

C1	PRC for Signalled Lanes (%):	-5.7	Total Delay for Signalled Lanes (pcuHr):	21.52	Cycle Time (s): 90
	PRC Over All Lanes (%):	-5.7	Total Delay Over All Lanes(pcuHr):	21.52	

Basic Results Summary

Scenario 9: '2028 Base + Com + Dev Saturday' (FG9: '2028 Base + Com + Dev Saturday', 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)	Item
Network	-	-	-		-	-	-	-	-	-	77.2%	52	0	0	10.6	-	-	Network
A495/Canal Way Signals	-	-	-		-	-	-	-	-	-	77.2%	52	0	0	10.6	-	-	A495/Canal Way Signals
1/1	A495 Ahead Right	O	C		1	35	-	370	1500	587	63.1%	52	0	0	3.3	31.9	8.1	1/1
2/1	A495 Scotland Street Ahead Left	U	A		1	36	-	476	1500	617	77.2%	-	-	-	4.7	35.4	11.8	2/1
3/1	Canal Way Left Right	U	B		1	27	-	253	1300	404	62.6%	-	-	-	2.7	38.3	6.2	3/1
Ped Link: P1	P1	-	D		1	43	-	0	-	34400	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P1
Ped Link: P2	P2	-	E		1	6	-	0	-	4800	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P2
Ped Link: P3	P3	-	F		1	50	-	0	-	40000	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P3
Ped Link: P4	P4	-	G		1	39	-	0	-	31200	0.0%	-	-	-	0.0	0.0	0.0	Ped Link: P4
C1 PRC for Signalled Lanes (%): 16.6 Total Delay for Signalled Lanes (pcuHr): 10.64 Cycle Time (s): 90 PRC Over All Lanes (%): 16.6 Total Delay Over All Lanes(pcuHr): 10.64																		