



# The Sizewell C Project

## 8.5 Transport Assessment Addendum Appendices 7A-10A Part 5 of 5

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Revision: 1.0  
Applicable Regulation: Regulation 5(2)(q)  
PINS Reference Number: EN010012

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Planning Act 2008  
Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009



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## TRANSPORT ASSESSMENT ADDENDUM APPENDICES

Documents included within this issue are as follows:

- Appendix 7A: Sizewell C Traffic Inputs
- Appendix 7B: Shift Patterns
- Appendix 7C: Other Additional Information
- Appendix 7D: Direct Bus Strategy
- Appendix 8A: Strategic Model LMVR Addendum
- Appendix 8B: SZC Traffic Flow Plots
- Appendix 8C: Journey Times Tables and Graphs
- Appendix 8D: Journey Times Variability
- Appendix 8E: Sensitivity Test All HGVs From A12 South
- Appendix 9A: Junction Model Results Summary
- Appendix 9B: Yoxford Vissim Model
- Appendix 9C: A12 Vissim Model
- Appendix 9D: Raw Junction Model Outputs (Continued from Part 4 of 5)
- Appendix 10A: Road Traffic Collisions

## 2034 Operational Led, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A12 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J24	A12 / Eagle Way / Anson Rd	Standard Roundabout	A, D, C, B	65.69	F

#### 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)	Run automatically
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	2051	100.000
B - Eagle Way West		ONE HOUR	✓	248	100.000
C - A12 South		ONE HOUR	✓	1925	100.000
D - Anson Rd East		ONE HOUR	✓	786	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Eagle Way West	C - A12 South	D - Anson Rd East
From	A - A12 North	0	175	1324	552
	B - Eagle Way West	146	0	29	73
	C - A12 South	1541	46	1	337
	D - Anson Rd East	436	79	271	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Eagle Way West	C - A12 South	D - Anson Rd East
From	A - A12 North	0	1	6	2
	B - Eagle Way West	4	0	0	2
	C - A12 South	6	0	100	2
	D - Anson Rd East	2	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.85	8.99	5.5	24.2	A	1882	2823
B - Eagle Way West	1.23	340.66	26.7	52.3	F	228	342
C - A12 South	1.05	101.64	66.9	148.9	F	1766	2649
D - Anson Rd East	0.92	39.68	8.9	47.8	E	721	1082

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1544	386	329	2726	0.567	1539	1588	0.0	1.3	3.020	A
B - Eagle Way West	187	47	1732	570	0.328	185	225	0.0	0.5	9.299	A
C - A12 South	1449	362	516	2173	0.667	1441	1219	0.0	2.0	4.871	A
D - Anson Rd East	592	148	1147	1220	0.485	588	720	0.0	0.9	5.661	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1844	461	392	2687	0.686	1841	1897	1.3	2.2	4.237	A
B - Eagle Way West	223	56	2069	403	0.554	220	269	0.5	1.2	19.428	C
C - A12 South	1730	433	618	2105	0.822	1721	1458	2.0	4.4	9.134	A
D - Anson Rd East	707	177	1372	1102	0.641	703	861	0.9	1.7	8.953	A

15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	2258	565	440	2658	0.850	2246	2186	2.2	5.3	8.487	A
B - Eagle Way West	273	68	2402	238	1.149	224	324	1.2	13.4	148.293	F
C - A12 South	2119	530	743	2022	1.048	1983	1768	4.4	38.4	47.879	E
D - Anson Rd East	866	216	1669	946	0.915	842	1017	1.7	7.6	29.693	D

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	2258	565	442	2657	0.850	2258	2211	5.3	5.5	8.986	A
B - Eagle Way West	273	68	2434	222	1.230	220	327	13.4	26.7	340.663	F
C - A12 South	2119	530	756	2014	1.052	2005	1781	38.4	66.9	101.636	F
D - Anson Rd East	866	216	1677	942	0.919	860	1023	7.6	8.9	39.677	E

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1844	461	454	2650	0.696	1857	2142	5.5	2.3	4.609	A
B - Eagle Way West	223	56	2336	270	0.826	260	280	26.7	17.4	290.556	F
C - A12 South	1730	433	640	2091	0.828	1976	1484	66.9	5.5	53.788	F
D - Anson Rd East	707	177	1389	1094	0.646	735	922	8.9	1.9	10.783	B

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1544	386	361	2706	0.571	1548	1651	2.3	1.3	3.121	A
B - Eagle Way West	187	47	1758	557	0.335	254	227	17.4	0.5	14.887	B
C - A12 South	1449	362	522	2169	0.668	1463	1236	5.5	2.0	5.197	A
D - Anson Rd East	592	148	1162	1213	0.488	595	747	1.9	1.0	5.867	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.30	0.57	1.18	1.63	1.82			N/A	N/A
B - Eagle Way West	0.48	0.04	0.41	1.26	1.39			N/A	N/A
C - A12 South	1.97	0.13	1.46	3.88	5.08			N/A	N/A
D - Anson Rd East	0.93	0.53	1.00	1.42	1.47			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.16	0.04	0.40	5.78	10.74			N/A	N/A
B - Eagle Way West	1.18	0.04	0.40	2.99	5.14			N/A	N/A
C - A12 South	4.37	0.05	0.49	12.44	21.22			N/A	N/A
D - Anson Rd East	1.74	0.05	0.46	4.62	7.49			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.32	0.03	0.31	5.36	24.18			N/A	N/A
B - Eagle Way West	13.42	2.36	11.08	24.64	29.77			N/A	N/A
C - A12 South	38.43	5.97	31.50	75.02	91.97			N/A	N/A
D - Anson Rd East	7.58	0.06	1.30	21.97	35.78			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.49	0.03	0.28	5.49	9.50			N/A	N/A
B - Eagle Way West	26.71	8.17	23.87	44.78	52.31			N/A	N/A
C - A12 South	66.95	14.47	57.58	123.86	148.86			N/A	N/A
D - Anson Rd East	8.91	0.04	0.45	24.72	47.84			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.33	0.06	0.93	6.02	9.08			N/A	N/A
B - Eagle Way West	17.40	8.47	16.25	24.72	27.54			N/A	N/A
C - A12 South	5.54	0.05	0.46	15.70	28.52			N/A	N/A
D - Anson Rd East	1.88	0.04	0.39	4.96	9.31			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.34	0.04	0.37	3.43	6.46			N/A	N/A
B - Eagle Way West	0.51	0.03	0.26	0.51	0.51			N/A	N/A
C - A12 South	2.05	0.03	0.29	2.05	7.28			N/A	N/A
D - Anson Rd East	0.96	0.03	0.29	1.00	4.44			N/A	N/A

## 2034 Operational Led, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A12 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J24	A12 / Eagle Way / Anson Rd	Standard Roundabout	A, D, C, B	28.30	D

#### 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)	Run automatically
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	2009	100.000
B - Eagle Way West		ONE HOUR	✓	175	100.000
C - A12 South		ONE HOUR	✓	1758	100.000
D - Anson Rd East		ONE HOUR	✓	854	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Eagle Way West	C - A12 South	D - Anson Rd East
From	A - A12 North	0	100	1437	473
	B - Eagle Way West	105	0	32	39
	C - A12 South	1411	45	0	301
	D - Anson Rd East	573	84	196	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Eagle Way West	C - A12 South	D - Anson Rd East
From	A - A12 North	0	0	2	2
	B - Eagle Way West	3	0	0	0
	C - A12 South	2	0	0	1
	D - Anson Rd East	1	0	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.80	6.68	4.0	11.0	A	1844	2765
B - Eagle Way West	0.86	83.27	4.1	18.7	F	161	241
C - A12 South	0.95	29.04	14.7	79.0	D	1613	2419
D - Anson Rd East	0.98	66.89	17.0	69.0	F	784	1176

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1513	378	279	2828	0.535	1508	1565	0.0	1.1	2.718	A
B - Eagle Way West	132	33	1713	607	0.217	131	171	0.0	0.3	7.544	A
C - A12 South	1323	331	567	2204	0.600	1317	1248	0.0	1.5	4.036	A
D - Anson Rd East	643	161	1177	1241	0.518	639	610	0.0	1.1	5.936	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1806	452	334	2795	0.646	1803	1871	1.1	1.8	3.624	A
B - Eagle Way West	157	39	2048	444	0.355	156	205	0.3	0.5	12.491	B
C - A12 South	1580	395	678	2129	0.742	1575	1493	1.5	2.8	6.437	A
D - Anson Rd East	768	192	1407	1122	0.684	764	730	1.1	2.1	9.921	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	2212	553	400	2754	0.803	2203	2237	1.8	3.9	6.446	A
B - Eagle Way West	193	48	2454	246	0.785	184	246	0.5	2.8	52.260	F
C - A12 South	1935	484	802	2045	0.946	1898	1815	2.8	12.0	20.726	C
D - Anson Rd East	940	235	1718	963	0.977	899	886	2.1	12.6	41.627	E

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	2212	553	406	2750	0.804	2212	2277	3.9	4.0	6.677	A
B - Eagle Way West	193	48	2496	225	0.856	188	250	2.8	4.1	83.269	F
C - A12 South	1935	484	821	2032	0.952	1925	1827	12.0	14.7	29.038	D
D - Anson Rd East	940	235	1725	959	0.981	923	893	12.6	17.0	66.889	F

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1806	452	349	2785	0.648	1815	1963	4.0	1.9	3.743	A
B - Eagle Way West	157	39	2141	399	0.395	171	213	4.1	0.7	16.753	C
C - A12 South	1580	395	727	2096	0.754	1626	1518	14.7	3.2	8.394	A
D - Anson Rd East	768	192	1419	1117	0.688	827	745	17.0	2.3	14.896	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1513	378	282	2826	0.535	1515	1582	1.9	1.2	2.753	A
B - Eagle Way West	132	33	1731	598	0.220	133	173	0.7	0.3	7.773	A
C - A12 South	1323	331	575	2199	0.602	1330	1256	3.2	1.5	4.173	A
D - Anson Rd East	643	161	1183	1238	0.519	648	615	2.3	1.1	6.148	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.14	0.55	1.00	1.40	1.45			N/A	N/A
B - Eagle Way West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A12 South	1.49	0.42	1.35	2.07	2.65			N/A	N/A
D - Anson Rd East	1.06	0.30	1.05	1.40	1.72			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.81	0.04	0.40	4.82	8.76			N/A	N/A
B - Eagle Way West	0.54	0.04	0.44	1.33	1.46			N/A	N/A
C - A12 South	2.80	0.04	0.42	7.73	13.98			N/A	N/A
D - Anson Rd East	2.09	0.05	0.45	5.71	9.53			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.94	0.03	0.28	3.94	10.99			N/A	N/A
B - Eagle Way West	2.85	0.04	0.43	7.88	14.08			N/A	N/A
C - A12 South	12.04	0.07	1.32	35.34	58.01			N/A	N/A
D - Anson Rd East	12.56	0.20	5.90	32.50	45.45			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	4.03	0.03	0.27	4.03	4.03			N/A	N/A
B - Eagle Way West	4.13	0.06	0.92	11.69	18.73			N/A	N/A
C - A12 South	14.70	0.05	0.49	41.45	79.01			N/A	N/A
D - Anson Rd East	17.01	0.14	5.95	47.12	69.03			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.87	0.07	1.10	4.34	6.11			N/A	N/A
B - Eagle Way West	0.67	0.04	0.38	1.51	2.42			N/A	N/A
C - A12 South	3.17	0.04	0.44	8.84	15.58			N/A	N/A
D - Anson Rd East	2.29	0.04	0.36	5.78	12.01			N/A	N/A

18:00 - 18:15

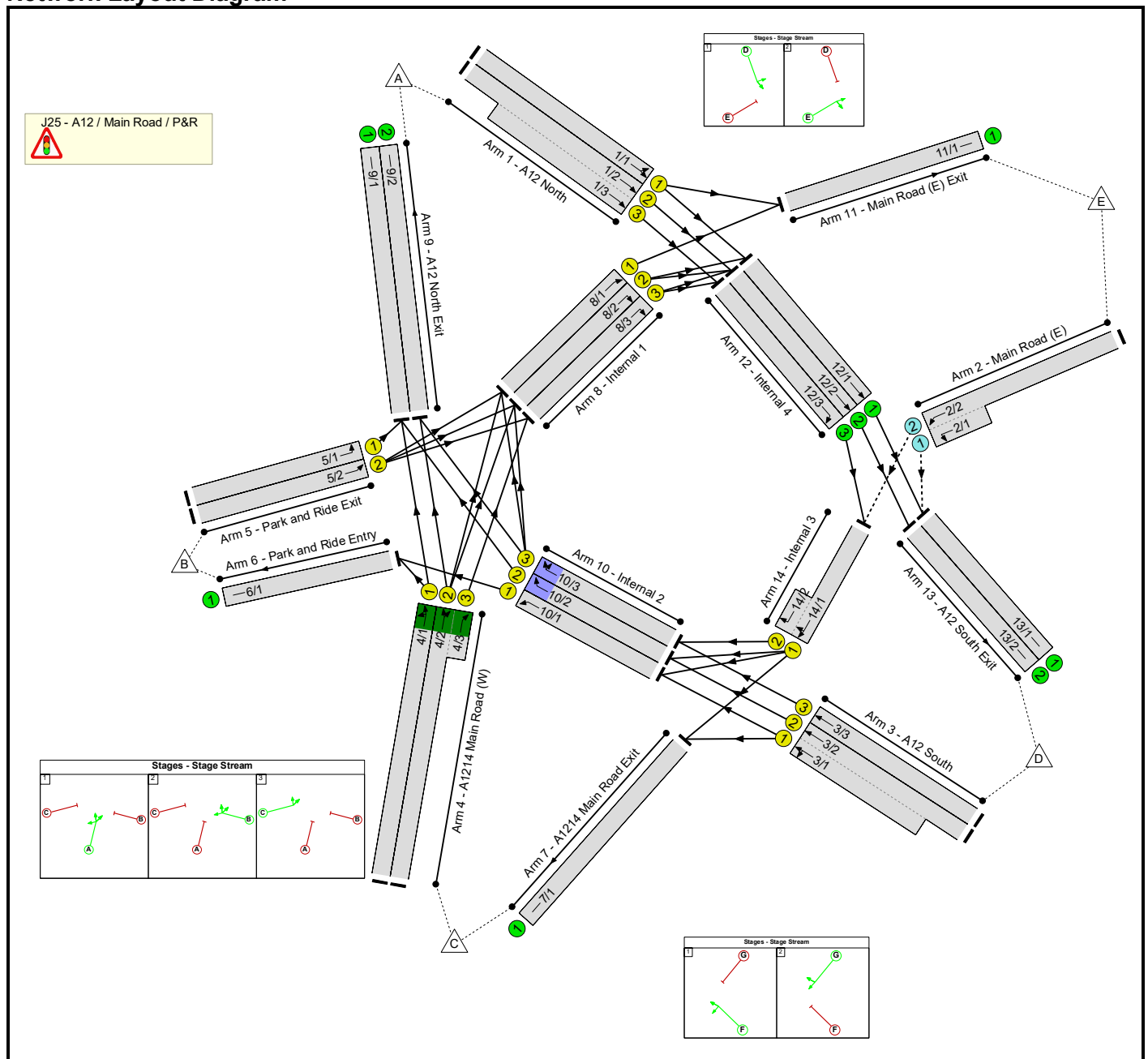
Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.16	0.04	0.42	2.89	4.74			N/A	N/A
B - Eagle Way West	0.29	0.03	0.28	0.70	1.08			N/A	N/A
C - A12 South	1.53	0.03	0.30	2.08	7.48			N/A	N/A
D - Anson Rd East	1.10	0.03	0.28	1.10	4.06			N/A	N/A

Full Input Data And Results  
**Full Input Data And Results**

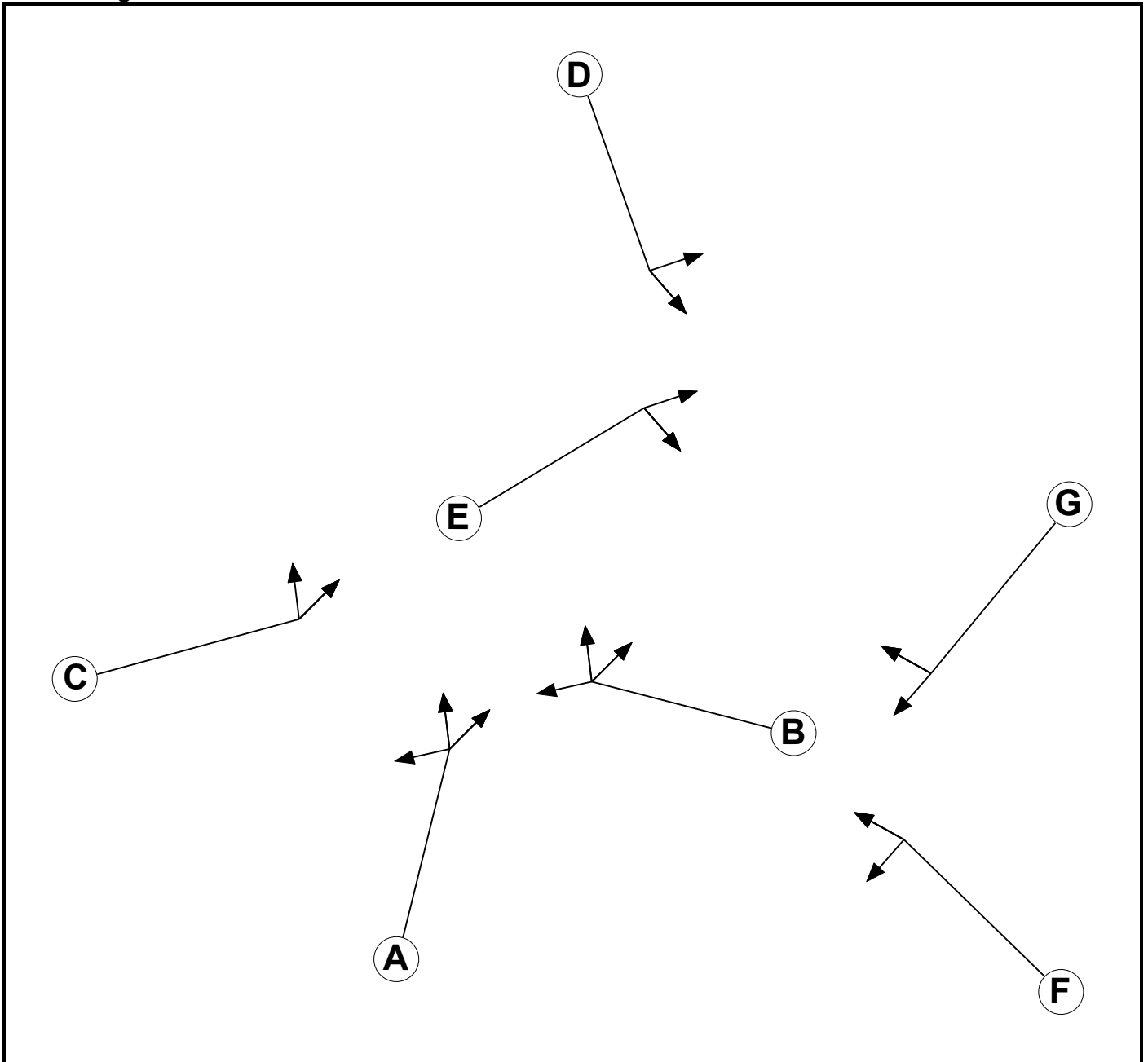
**User and Project Details**

<b>Project:</b>	
<b>Title:</b>	
<b>Location:</b>	
<b>Additional detail:</b>	
<b>File name:</b>	2019.08.14 J25_Model v16 SENS.lsg3x
<b>Author:</b>	
<b>Company:</b>	
<b>Address:</b>	

**Network Layout Diagram**



**Phase Diagram**



**Phase Input Data**

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	2		7	7
E	Traffic	2		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7



Full Input Data And Results

**Phase Intergrens Matrix**

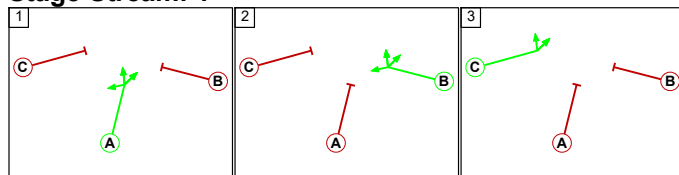
		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		5	9	-	-	-	-
	B	5		9	-	-	-	-
	C	5	5		-	-	-	-
	D	-	-	-		5	-	-
	E	-	-	-	5		-	-
	F	-	-	-	-	-		5
	G	-	-	-	-	-	5	

**Phases in Stage**

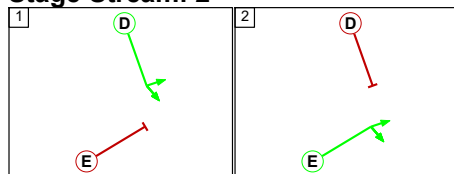
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
1	3	C
2	1	D
2	2	E
3	1	F
3	2	G

**Stage Diagram**

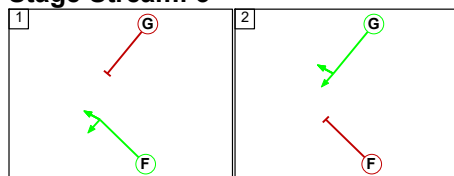
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Phase Delays**

**Stage Stream: 1**

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

Full Input Data And Results

**Stage Stream: 2**

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

**Stage Stream: 3**

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

**Prohibited Stage Change**

**Stage Stream: 1**

		To Stage		
		1	2	3
From Stage	1		5	9
	2	5		9
	3	5	5	

**Stage Stream: 2**

		To Stage	
		1	2
From Stage	1		5
	2	5	

**Stage Stream: 3**

		To Stage	
		1	2
From Stage	1		5
	2	5	

Full Input Data And Results

**Give-Way Lane Input Data**

Junction: J25 - A12 / Main Road / P&&R											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (Main Road (E))	13/1 (Left)	715	0	12/1	0.22	All	-	-	-	-	-
2/2 (Main Road (E))	14/1 (Ahead)	715	0	12/3	0.22	All	-	-	-	-	-
				12/1	0.22	All					
				12/2	0.22	All					

Full Input Data And Results

**Lane Input Data**

Junction: J25 - A12 / Main Road / P&R												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A12 North)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 11 Left	71.50
											Arm 12 Ahead	Inf
1/2 (A12 North)	U	D	2	3	60.0	Geom	-	3.50	0.00	N	Arm 12 Ahead	Inf
1/3 (A12 North)	U	D	2	3	15.2	Geom	-	3.60	0.00	N	Arm 12 Ahead	Inf
2/1 (Main Road (E))	O		2	3	4.9	Geom	-	3.85	0.00	Y	Arm 13 Left	17.80
2/2 (Main Road (E))	O		2	3	60.0	User	950	-	-	-	-	-
3/1 (A12 South)	U	F	2	3	16.2	Geom	-	3.70	0.00	Y	Arm 7 Left	38.50
											Arm 10 Ahead	29.20
3/2 (A12 South)	U	F	2	3	60.0	Geom	-	3.70	0.00	N	Arm 10 Ahead	56.10
3/3 (A12 South)	U	F	2	3	60.0	Geom	-	3.70	0.00	N	Arm 10 Ahead	77.10
4/1 (A1214 Main Road (W))	U	A	2	3	60.0	Geom	-	4.20	0.00	Y	Arm 6 Left	31.40
											Arm 9 Ahead	Inf
4/2 (A1214 Main Road (W))	U	A	2	3	60.0	Geom	-	4.20	0.00	N	Arm 8 Ahead	Inf
											Arm 9 Ahead	Inf
4/3 (A1214 Main Road (W))	U	A	2	3	3.9	Geom	-	4.20	0.00	N	Arm 8 Ahead	Inf
5/1 (Park and Ride Exit)	U	C	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 9 Left	Inf
5/2 (Park and Ride Exit)	U	C	2	3	60.0	Geom	-	3.70	0.00	N	Arm 8 Ahead	Inf
6/1 (Park and Ride Entry)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A1214 Main Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Internal 1)	U	E	2	3	10.2	Geom	-	4.70	0.00	Y	Arm 11 Ahead	32.60
8/2 (Internal 1)	U	E	2	3	10.2	Geom	-	4.80	0.00	N	Arm 12 Right	32.60

Full Input Data And Results

8/3 (Internal 1)	U	E	2	3	10.2	Geom	-	4.70	0.00	N	Arm 12 Right	32.60
9/1 (A12 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/2 (A12 North Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (Internal 2)	U	B	2	3	4.6	Geom	-	4.10	0.00	Y	Arm 6 Ahead	31.20
10/2 (Internal 2)	U	B	2	3	7.8	Geom	-	4.10	0.00	N	Arm 9 Right	31.20
10/3 (Internal 2)	U	B	2	3	7.8	Geom	-	4.10	0.00	N	Arm 8 Right Arm 9 Right	31.20 31.20
11/1 (Main Road (E) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Internal 4)	U		2	3	8.9	Inf	-	-	-	-	-	-
12/2 (Internal 4)	U		2	3	8.9	Inf	-	-	-	-	-	-
12/3 (Internal 4)	U		2	3	8.9	Inf	-	-	-	-	-	-
13/1 (A12 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2 (A12 South Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1 (Internal 3)	U	G	2	3	5.7	User	1800	-	-	-	-	-
14/2 (Internal 3)	U	G	2	3	3.4	User	1800	-	-	-	-	-

Full Input Data And Results

**Traffic Flow Groups**

Flow Group	Start Time	End Time	Duration	Formula
1: '17BY_6-7AM'	06:00	07:00	01:00	
2: '17BY_7-8AM'	07:00	08:00	01:00	
3: '17BY_8-9AM'	08:00	09:00	01:00	
4: '17BY_3-4PM'	15:00	16:00	01:00	
5: '17BY_5-6PM'	17:00	18:00	01:00	
6: '23EY_6-7AM'	06:00	07:00	01:00	
7: '23EY_7-8AM'	07:00	08:00	01:00	
8: '23EY_8-9AM'	08:00	09:00	01:00	
9: '23EY_3-4PM'	15:00	16:00	01:00	
10: '23EY_5-6PM'	17:00	18:00	01:00	
11: '23RC_6-7AM'	06:00	07:00	01:00	
12: '23RC_7-8AM'	07:00	08:00	01:00	
13: '23RC_8-9AM'	08:00	09:00	01:00	
14: '23RC_3-4PM'	15:00	16:00	01:00	
15: '23RC_5-6PM'	17:00	18:00	01:00	
16: '28PC_6-7AM'	06:00	07:00	01:00	
17: '28PC_7-8AM'	07:00	08:00	01:00	
18: '28PC_8-9AM'	08:00	09:00	01:00	
19: '28PC_3-4PM'	15:00	16:00	01:00	
20: '28PC_5-6PM'	17:00	18:00	01:00	
21: '28RC_6-7AM'	06:00	07:00	01:00	
22: '28RC_7-8AM'	07:00	08:00	01:00	
23: '28RC_8-9AM'	08:00	09:00	01:00	
24: '28RC_3-4PM'	15:00	16:00	01:00	
25: '28RC_5-6PM'	17:00	18:00	01:00	
26: '34OP_6-7AM'	06:00	07:00	01:00	
27: '34OP_7-8AM'	07:00	08:00	01:00	
28: '34OP_8-9AM'	08:00	09:00	01:00	
29: '34OP_3-4PM'	15:00	16:00	01:00	
30: '34OP_5-6PM'	17:00	18:00	01:00	
31: '34RC_6-7AM'	06:00	07:00	01:00	
32: '34RC_7-8AM'	07:00	08:00	01:00	
33: '34RC_8-9AM'	08:00	09:00	01:00	
34: '34RC_3-4PM'	15:00	16:00	01:00	
35: '34RC_5-6PM'	17:00	18:00	01:00	

**Scenario 1: '2019 Base Year 6-7AM'** (FG1: '17BY\_6-7AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**  
**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	145	667	1	813
	B	0	0	0	2	0	2
	C	179	1	0	224	34	438
	D	476	6	132	1	10	625
	E	4	0	0	36	0	40
	Tot.	659	7	277	930	45	1918

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 1: 2019 Base Year 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	270
1/2 (with short)	543(In) 398(Out)
1/3 (short)	145
2/1 (short)	36
2/2 (with short)	40(In) 4(Out)
3/1 (short)	138
3/2 (with short)	412(In) 274(Out)
3/3	213
4/1	123
4/2 (with short)	315(In) 189(Out)
4/3 (short)	126
5/1	0
5/2	2
6/1	7
7/1	277
8/1	44
8/2	99
8/3	128
9/1	399
9/2	260
10/1	6
10/2	277
10/3	214
11/1	45
12/1	318
12/2	576
12/3	145
13/1	354
13/2	576
14/1 (with short)	149(In) 148(Out)
14/2 (short)	1



Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.4 %	1965	1965
				Arm 12 Ahead	Inf	99.6 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	95.7 %	1910	1910
				Arm 10 Ahead	29.20	4.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.8 %	2034	2034
				Arm 9 Ahead	Inf	99.2 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	69.8 %	2175	2175
				Arm 9 Ahead	Inf	30.2 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	0.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	5.1 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	94.9 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 2: '2019 Base Year 7-8AM' (FG2: '17BY\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
	A	B	C	D	E	Tot.	
A	7	0	342	1102	2	1453	
B	3	0	0	2	2	7	
C	433	13	0	560	85	1091	
D	1108	41	290	1	18	1458	
E	5	0	0	78	0	83	
Tot.	1556	54	632	1743	107	4092	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 2: 2019 Base Year 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	488
1/2 (with short)	965(In) 616(Out)
1/3 (short)	349
2/1 (short)	78
2/2 (with short)	83(In) 5(Out)
3/1 (short)	331
3/2 (with short)	929(In) 598(Out)
3/3	529
4/1	421
4/2 (with short)	670(In) 378(Out)
4/3 (short)	292
5/1	3
5/2	4
6/1	54
7/1	632
8/1	105
8/2	271
8/3	292
9/1	1009
9/2	547
10/1	41
10/2	598
10/3	541
11/1	107
12/1	621
12/2	1044
12/3	349
13/1	699
13/2	1044
14/1 (with short)	354(In) 342(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.4 %	1965	1965
				Arm 12 Ahead	Inf	99.6 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	87.6 %	1908	1908
				Arm 10 Ahead	29.20	12.4 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	3.1 %	2032	2032
				Arm 9 Ahead	Inf	96.9 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	93.4 %	2175	2175
				Arm 9 Ahead	Inf	6.6 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 3: '2019 Base Year 8-9AM' (FG3: '17BY\_8-9AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
	A	B	C	D	E	Tot.	
A	8	0	391	1310	7	1716	
B	5	0	1	13	0	19	
C	380	6	0	741	97	1224	
D	1345	48	382	0	44	1819	
E	17	2	0	127	0	146	
Tot.	1755	56	774	2191	148	4924	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 3: 2019 Base Year 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	601
1/2 (with short)	1115(In) 716(Out)
1/3 (short)	399
2/1 (short)	127
2/2 (with short)	146(In) 19(Out)
3/1 (short)	430
3/2 (with short)	1136(In) 706(Out)
3/3	683
4/1	386
4/2 (with short)	838(In) 455(Out)
4/3 (short)	383
5/1	5
5/2	14
6/1	56
7/1	774
8/1	141
8/2	371
8/3	384
9/1	1104
9/2	651
10/1	50
10/2	719
10/3	695
11/1	148
12/1	780
12/2	1284
12/3	400
13/1	907
13/2	1284
14/1 (with short)	419(In) 407(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.2 %	1965	1965
				Arm 12 Ahead	Inf	98.8 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	88.8 %	1908	1908
				Arm 10 Ahead	29.20	11.2 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.6 %	2033	2033
				Arm 9 Ahead	Inf	98.4 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.3 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.7 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 4: '2019 Base Year 3-4PM'** (FG4: '17BY\_3-4PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	0	378	1131	12	1522
B	4	0	0	8	1	13	
C	373	0	0	594	47	1014	
D	1232	2	610	0	108	1952	
E	11	0	91	127	0	229	
Tot.	1621	2	1079	1860	168	4730	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 4: 2019 Base Year 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	527
1/2 (with short)	995(In) 616(Out)
1/3 (short)	379
2/1 (short)	127
2/2 (with short)	229(In) 102(Out)
3/1 (short)	612
3/2 (with short)	1302(In) 690(Out)
3/3	650
4/1	373
4/2 (with short)	641(In) 333(Out)
4/3 (short)	308
5/1	4
5/2	9
6/1	2
7/1	1079
8/1	156
8/2	288
8/3	314
9/1	1075
9/2	546
10/1	2
10/2	698
10/3	654
11/1	168
12/1	659
12/2	1074
12/3	379
13/1	786
13/2	1074
14/1 (with short)	481(In) 477(Out)
14/2 (short)	4

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	2.3 %	1964	1964
				Arm 12 Ahead	Inf	97.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	16.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	83.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 5: '2019 Base Year 5-6PM' (FG5: '17BY\_5-6PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	376	1036	7	1419
B	20	0	0	18	4	42	
C	317	2	0	461	76	856	
D	1199	6	625	2	130	1962	
E	6	2	132	147	1	288	
Tot.	1542	10	1133	1664	218	4567	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 5: 2019 Base Year 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	472
1/2 (with short)	947(In) 571(Out)
1/3 (short)	376
2/1 (short)	147
2/2 (with short)	288(In) 141(Out)
3/1 (short)	631
3/2 (with short)	1314(In) 683(Out)
3/3	648
4/1	302
4/2 (with short)	554(In) 287(Out)
4/3 (short)	267
5/1	20
5/2	22
6/1	10
7/1	1133
8/1	211
8/2	200
8/3	281
9/1	1008
9/2	534
10/1	8
10/2	688
10/3	650
11/1	218
12/1	565
12/2	952
12/3	376
13/1	712
13/2	952
14/1 (with short)	517(In) 515(Out)
14/2 (short)	2

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.5 %	1964	1964
				Arm 12 Ahead	Inf	98.5 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.0 %	1910	1910
				Arm 10 Ahead	29.20	1.0 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	94.1 %	2175	2175
				Arm 9 Ahead	Inf	5.9 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	20.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	79.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 6: '2023 Reference Case 6-7AM' (FG11: '23RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	1	139	703	9	852
B	1	0	0	2	0	3	
C	193	1	0	224	31	449	
D	506	6	136	1	10	659	
E	4	0	0	36	0	40	
Tot.	704	8	275	966	50	2003	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 6: 2023 Reference Case 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	295
1/2 (with short)	557(In) 417(Out)
1/3 (short)	140
2/1 (short)	36
2/2 (with short)	40(In) 4(Out)
3/1 (short)	142
3/2 (with short)	431(In) 289(Out)
3/3	228
4/1	129
4/2 (with short)	320(In) 192(Out)
4/3 (short)	128
5/1	1
5/2	2
6/1	8
7/1	275
8/1	41
8/2	99
8/3	128
9/1	421
9/2	283
10/1	7
10/2	292
10/3	229
11/1	50
12/1	335
12/2	595
12/3	140
13/1	371
13/2	595
14/1 (with short)	144(In) 143(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.1 %	1964	1964
				Arm 12 Ahead	Inf	96.9 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	95.8 %	1910	1910
				Arm 10 Ahead	29.20	4.2 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.8 %	2034	2034
				Arm 9 Ahead	Inf	99.2 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	66.1 %	2175	2175
				Arm 9 Ahead	Inf	33.9 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	4.8 %	2066	2066



Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	95.2 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 7: '2023 Reference Case 7-8AM' (FG12: '23RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	334	1113	21	1475
B	3	0	0	1	2	6	
C	456	13	0	559	80	1108	
D	1175	42	301	1	21	1540	
E	5	1	6	82	0	94	
Tot.	1646	56	641	1756	124	4223	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 7: 2023 Reference Case 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	504
1/2 (with short)	971(In) 630(Out)
1/3 (short)	341
2/1 (short)	82
2/2 (with short)	94(In) 12(Out)
3/1 (short)	343
3/2 (with short)	974(In) 631(Out)
3/3	566
4/1	432
4/2 (with short)	676(In) 385(Out)
4/3 (short)	291
5/1	3
5/2	3
6/1	56
7/1	641
8/1	103
8/2	269
8/3	292
9/1	1053
9/2	593
10/1	43
10/2	631
10/3	578
11/1	124
12/1	617
12/2	1057
12/3	341
13/1	699
13/2	1057
14/1 (with short)	353(In) 341(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	4.2 %	1963	1963
				Arm 12 Ahead	Inf	95.8 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	87.8 %	1908	1908
				Arm 10 Ahead	29.20	12.2 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	3.0 %	2032	2032
				Arm 9 Ahead	Inf	97.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	90.4 %	2175	2175
				Arm 9 Ahead	Inf	9.6 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.8 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.2 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 8: '2023 Reference Case 8-9AM' (FG13: '23RC\_8-9AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	8	0	400	1307	20	1735
B	5	0	1	13	0	19	
C	395	6	0	738	108	1247	
D	1418	49	415	0	51	1933	
E	17	3	11	132	0	163	
Tot.	1843	58	827	2190	179	5097	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 8: 2023 Reference Case 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;&amp;R</b>	
1/1	606
1/2 (with short)	1129(In) 721(Out)
1/3 (short)	408
2/1 (short)	132
2/2 (with short)	163(In) 31(Out)
3/1 (short)	464
3/2 (with short)	1207(In) 743(Out)
3/3	726
4/1	401
4/2 (with short)	846(In) 464(Out)
4/3 (short)	382
5/1	5
5/2	14
6/1	58
7/1	827
8/1	159
8/2	369
8/3	383
9/1	1158
9/2	685
10/1	52
10/2	758
10/3	736
11/1	179
12/1	771
12/2	1287
12/3	409
13/1	903
13/2	1287
14/1 (with short)	440(In) 430(Out)
14/2 (short)	10

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.3 %	1964	1964
				Arm 12 Ahead	Inf	96.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	89.4 %	1908	1908
				Arm 10 Ahead	29.20	10.6 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.5 %	2034	2034
				Arm 9 Ahead	Inf	98.5 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.9 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.1 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 9: '2023 Reference Case 3-4PM' (FG14: '23RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
	A	B	C	D	E	Tot.	
A	1	0	394	1155	9	1559	
B	5	0	1	9	1	16	
C	391	0	0	565	59	1015	
D	1260	2	624	0	116	2002	
E	11	0	116	131	0	258	
Tot.	1668	2	1135	1860	185	4850	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 9: 2023 Reference Case 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;&amp;R</b>	
1/1	538
1/2 (with short)	1021(In) 626(Out)
1/3 (short)	395
2/1 (short)	131
2/2 (with short)	258(In) 127(Out)
3/1 (short)	626
3/2 (with short)	1331(In) 705(Out)
3/3	671
4/1	384
4/2 (with short)	631(In) 330(Out)
4/3 (short)	301
5/1	5
5/2	11
6/1	2
7/1	1135
8/1	176
8/2	266
8/3	309
9/1	1102
9/2	566
10/1	2
10/2	713
10/3	675
11/1	185
12/1	662
12/2	1067
12/3	396
13/1	793
13/2	1067
14/1 (with short)	523(In) 519(Out)
14/2 (short)	4



Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.7 %	1964	1964
				Arm 12 Ahead	Inf	98.3 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	97.9 %	2175	2175
				Arm 9 Ahead	Inf	2.1 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	17.2 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	82.8 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 10: '2023 Reference Case 5-6PM' (FG15: '23RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	398	1116	8	1522
B	21	0	0	18	5	44	
C	329	2	0	428	82	841	
D	1234	6	585	2	142	1969	
E	6	2	220	151	1	380	
Tot.	1590	10	1203	1715	238	4756	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 10: 2023 Reference Case 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	518
1/2 (with short)	1004(In) 606(Out)
1/3 (short)	398
2/1 (short)	151
2/2 (with short)	380(In) 229(Out)
3/1 (short)	591
3/2 (with short)	1293(In) 702(Out)
3/3	676
4/1	296
4/2 (with short)	545(In) 285(Out)
4/3 (short)	260
5/1	21
5/2	23
6/1	10
7/1	1203
8/1	230
8/2	176
8/3	272
9/1	1021
9/2	569
10/1	8
10/2	706
10/3	679
11/1	238
12/1	598
12/2	966
12/3	398
13/1	749
13/2	966
14/1 (with short)	627(In) 624(Out)
14/2 (short)	3

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.5 %	1964	1964
				Arm 12 Ahead	Inf	98.5 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.0 %	1910	1910
				Arm 10 Ahead	29.20	1.0 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	87.7 %	2175	2175
				Arm 9 Ahead	Inf	12.3 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	21.4 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	78.6 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 11: '2023 Early Years 6-7AM' (FG6: '23EY\_6-7AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
	A	B	C	D	E	Tot.	
A	0	1	141	714	10	866	
B	1	0	0	2	0	3	
C	217	1	0	225	31	474	
D	612	7	137	1	10	767	
E	4	0	0	36	0	40	
Tot.	834	9	278	978	51	2150	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 11: 2023 Early Years 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	301
1/2 (with short)	565(In) 423(Out)
1/3 (short)	142
2/1 (short)	36
2/2 (with short)	40(In) 4(Out)
3/1 (short)	144
3/2 (with short)	482(In) 338(Out)
3/3	285
4/1	142
4/2 (with short)	332(In) 201(Out)
4/3 (short)	131
5/1	1
5/2	2
6/1	9
7/1	278
8/1	41
8/2	97
8/3	131
9/1	481
9/2	353
10/1	8
10/2	339
10/3	288
11/1	51
12/1	339
12/2	603
12/3	142
13/1	375
13/2	603
14/1 (with short)	146(In) 143(Out)
14/2 (short)	3

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.3 %	1964	1964
				Arm 12 Ahead	Inf	96.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	95.1 %	1909	1909
				Arm 10 Ahead	29.20	4.9 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	62.2 %	2175	2175
				Arm 9 Ahead	Inf	37.8 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.8 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.2 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 12: '2023 Early Years 7-8AM' (FG7: '23EY\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	338	1129	10	1484
B	3	0	0	1	2	6	
C	515	13	0	568	74	1170	
D	1370	42	304	1	21	1738	
E	5	1	2	82	0	90	
Tot.	1900	56	644	1781	107	4488	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 12: 2023 Early Years 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	507
1/2 (with short)	977(In) 632(Out)
1/3 (short)	345
2/1 (short)	82
2/2 (with short)	90(In) 8(Out)
3/1 (short)	346
3/2 (with short)	1067(In) 721(Out)
3/3	671
4/1	467
4/2 (with short)	703(In) 407(Out)
4/3 (short)	296
5/1	3
5/2	3
6/1	56
7/1	644
8/1	97
8/2	273
8/3	297
9/1	1178
9/2	722
10/1	43
10/2	721
10/3	683
11/1	107
12/1	633
12/2	1066
12/3	345
13/1	715
13/2	1066
14/1 (with short)	353(In) 341(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	2.0 %	1964	1964
				Arm 12 Ahead	Inf	98.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	87.9 %	1908	1908
				Arm 10 Ahead	29.20	12.1 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	2.8 %	2032	2032
				Arm 9 Ahead	Inf	97.2 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	85.0 %	2175	2175
				Arm 9 Ahead	Inf	15.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.2 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.8 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 13: '2023 Early Years 8-9AM' (FG8: '23EY\_8-9AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	8	0	402	1317	17	1744
B	5	0	1	13	0	19	
C	416	6	0	740	108	1270	
D	1531	49	416	0	51	2047	
E	17	2	9	132	0	160	
Tot.	1977	57	828	2202	176	5240	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 13: 2023 Early Years 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	609
1/2 (with short)	1135(In) 725(Out)
1/3 (short)	410
2/1 (short)	132
2/2 (with short)	160(In) 28(Out)
3/1 (short)	465
3/2 (with short)	1259(In) 794(Out)
3/3	788
4/1	422
4/2 (with short)	848(In) 464(Out)
4/3 (short)	384
5/1	5
5/2	14
6/1	57
7/1	828
8/1	159
8/2	369
8/3	385
9/1	1230
9/2	747
10/1	51
10/2	809
10/3	798
11/1	176
12/1	777
12/2	1293
12/3	411
13/1	909
13/2	1293
14/1 (with short)	439(In) 429(Out)
14/2 (short)	10

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	2.8 %	1964	1964
				Arm 12 Ahead	Inf	97.2 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	89.5 %	1908	1908
				Arm 10 Ahead	29.20	10.5 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.4 %	2034	2034
				Arm 9 Ahead	Inf	98.6 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.4 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.6 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 14: '2023 Early Years 3-4PM'** (FG9: '23EY\_3-4PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	0	385	1194	7	1587
B	5	0	1	9	1	16	
C	397	0	0	558	56	1011	
D	1316	2	632	0	116	2066	
E	11	0	121	130	0	262	
Tot.	1730	2	1139	1891	180	4942	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 14: 2023 Early Years 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	559
1/2 (with short)	1028(In) 642(Out)
1/3 (short)	386
2/1 (short)	130
2/2 (with short)	262(In) 132(Out)
3/1 (short)	634
3/2 (with short)	1363(In) 729(Out)
3/3	703
4/1	382
4/2 (with short)	629(In) 331(Out)
4/3 (short)	298
5/1	5
5/2	11
6/1	2
7/1	1139
8/1	173
8/2	262
8/3	306
9/1	1124
9/2	606
10/1	2
10/2	737
10/3	707
11/1	180
12/1	683
12/2	1078
12/3	387
13/1	813
13/2	1078
14/1 (with short)	519(In) 515(Out)
14/2 (short)	4

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.3 %	1964	1964
				Arm 12 Ahead	Inf	98.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	95.5 %	2175	2175
				Arm 9 Ahead	Inf	4.5 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	16.4 %	2066	2066



Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	83.6 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 15: '2023 Early Years 5-6PM' (FG10: '23EY\_5-6PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
	A	B	C	D	E	Tot.	
A	0	0	402	1159	8	1569	
B	21	0	0	18	5	44	
C	317	2	0	406	83	808	
D	1270	6	582	2	142	2002	
E	6	2	223	151	1	383	
Tot.	1614	10	1207	1736	239	4806	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 15: 2023 Early Years 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	544
1/2 (with short)	1025(In) 623(Out)
1/3 (short)	402
2/1 (short)	151
2/2 (with short)	383(In) 232(Out)
3/1 (short)	588
3/2 (with short)	1305(In) 717(Out)
3/3	697
4/1	280
4/2 (with short)	528(In) 276(Out)
4/3 (short)	252
5/1	21
5/2	23
6/1	10
7/1	1207
8/1	231
8/2	160
8/3	266
9/1	1021
9/2	593
10/1	8
10/2	722
10/3	699
11/1	239
12/1	616
12/2	969
12/3	402
13/1	767
13/2	969
14/1 (with short)	634(In) 632(Out)
14/2 (short)	2

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.5 %	1964	1964
				Arm 12 Ahead	Inf	98.5 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.0 %	1910	1910
				Arm 10 Ahead	29.20	1.0 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	85.9 %	2175	2175
				Arm 9 Ahead	Inf	14.1 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	20.7 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	79.3 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 16: '2028 Reference Case 6-7AM' (FG21: '28RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	1	146	718	10	875
B	0	0	0	2	0	2	
C	208	1	0	226	34	469	
D	525	7	139	1	10	682	
E	4	0	1	36	0	41	
Tot.	737	9	286	983	54	2069	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 16: 2028 Reference Case 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	302
1/2 (with short)	573(In) 426(Out)
1/3 (short)	147
2/1 (short)	36
2/2 (with short)	41(In) 5(Out)
3/1 (short)	146
3/2 (with short)	444(In) 298(Out)
3/3	238
4/1	140
4/2 (with short)	329(In) 199(Out)
4/3 (short)	130
5/1	0
5/2	2
6/1	9
7/1	286
8/1	44
8/2	97
8/3	132
9/1	440
9/2	297
10/1	8
10/2	301
10/3	239
11/1	54
12/1	340
12/2	607
12/3	147
13/1	376
13/2	607
14/1 (with short)	152(In) 151(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.3 %	1964	1964
				Arm 12 Ahead	Inf	96.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	95.2 %	1909	1909
				Arm 10 Ahead	29.20	4.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	65.3 %	2175	2175
				Arm 9 Ahead	Inf	34.7 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	0.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	4.6 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	95.4 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 17: '2028 Reference Case 7-8AM' (FG22: '28RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	337	1143	65	1552
B	3	0	0	1	2	6	
C	466	13	0	563	80	1122	
D	1258	43	320	1	21	1643	
E	5	1	7	82	0	95	
Tot.	1739	57	664	1790	168	4418	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 17: 2028 Reference Case 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	544
1/2 (with short)	1008(In) 664(Out)
1/3 (short)	344
2/1 (short)	82
2/2 (with short)	95(In) 13(Out)
3/1 (short)	363
3/2 (with short)	1034(In) 671(Out)
3/3	609
4/1	439
4/2 (with short)	683(In) 390(Out)
4/3 (short)	293
5/1	3
5/2	3
6/1	57
7/1	664
8/1	103
8/2	271
8/3	294
9/1	1100
9/2	639
10/1	44
10/2	671
10/3	621
11/1	168
12/1	614
12/2	1094
12/3	344
13/1	696
13/2	1094
14/1 (with short)	357(In) 345(Out)
14/2 (short)	12



Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	11.9 %	1960	1960
				Arm 12 Ahead	Inf	88.1 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	88.2 %	1908	1908
				Arm 10 Ahead	29.20	11.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	3.0 %	2032	2032
				Arm 9 Ahead	Inf	97.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	89.7 %	2175	2175
				Arm 9 Ahead	Inf	10.3 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 18: '2028 Reference Case 8-9AM'** (FG23: '28RC\_8-9AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	8	0	404	1373	19	1804
B	5	0	1	13	0	19	
C	433	6	0	746	114	1299	
D	1526	50	458	0	53	2087	
E	17	3	14	132	0	166	
Tot.	1989	59	877	2264	186	5375	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 18: 2028 Reference Case 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	641
1/2 (with short)	1163(In) 751(Out)
1/3 (short)	412
2/1 (short)	132
2/2 (with short)	166(In) 34(Out)
3/1 (short)	508
3/2 (with short)	1301(In) 793(Out)
3/3	786
4/1	439
4/2 (with short)	860(In) 474(Out)
4/3 (short)	386
5/1	5
5/2	14
6/1	59
7/1	877
8/1	167
8/2	373
8/3	387
9/1	1247
9/2	742
10/1	53
10/2	809
10/3	795
11/1	186
12/1	809
12/2	1323
12/3	413
13/1	941
13/2	1323
14/1 (with short)	447(In) 438(Out)
14/2 (short)	9

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.0 %	1964	1964
				Arm 12 Ahead	Inf	97.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	90.2 %	1908	1908
				Arm 10 Ahead	29.20	9.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.4 %	2034	2034
				Arm 9 Ahead	Inf	98.6 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.7 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.3 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 19: '2028 Reference Case 3-4PM' (FG24: '28RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	0	394	1209	35	1639
B	5	0	1	10	1	17	
C	373	0	0	624	71	1068	
D	1356	2	629	0	117	2104	
E	11	0	175	131	0	317	
Tot.	1746	2	1199	1974	224	5145	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 19: 2028 Reference Case 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	582
1/2 (with short)	1057(In) 662(Out)
1/3 (short)	395
2/1 (short)	131
2/2 (with short)	317(In) 186(Out)
3/1 (short)	631
3/2 (with short)	1376(In) 745(Out)
3/3	728
4/1	373
4/2 (with short)	695(In) 365(Out)
4/3 (short)	330
5/1	5
5/2	12
6/1	2
7/1	1199
8/1	189
8/2	298
8/3	337
9/1	1131
9/2	615
10/1	2
10/2	753
10/3	732
11/1	224
12/1	696
12/2	1147
12/3	396
13/1	827
13/2	1147
14/1 (with short)	582(In) 578(Out)
14/2 (short)	4

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	6.0 %	1963	1963
				Arm 12 Ahead	Inf	94.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	16.0 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	84.0 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 20: '2028 Reference Case 5-6PM' (FG25: '28RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	381	1217	8	1606
B	21	0	0	19	5	45	
C	328	2	0	433	90	853	
D	1307	6	634	2	142	2091	
E	6	2	277	151	1	437	
Tot.	1662	10	1292	1822	246	5032	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 20: 2028 Reference Case 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	579
1/2 (with short)	1027(In) 646(Out)
1/3 (short)	381
2/1 (short)	151
2/2 (with short)	437(In) 286(Out)
3/1 (short)	640
3/2 (with short)	1374(In) 734(Out)
3/3	717
4/1	302
4/2 (with short)	551(In) 288(Out)
4/3 (short)	263
5/1	21
5/2	24
6/1	10
7/1	1292
8/1	238
8/2	180
8/3	274
9/1	1060
9/2	602
10/1	8
10/2	739
10/3	719
11/1	246
12/1	661
12/2	1010
12/3	381
13/1	812
13/2	1010
14/1 (with short)	667(In) 665(Out)
14/2 (short)	2

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.4 %	1964	1964
				Arm 12 Ahead	Inf	98.6 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.1 %	1910	1910
				Arm 10 Ahead	29.20	0.9 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	90.3 %	2175	2175
				Arm 9 Ahead	Inf	9.7 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	20.2 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	79.8 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 21: '2028 Peak Construction 6-7AM'** (FG16: '28PC\_6-7AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	1	153	720	11	885
	B	0	0	0	2	0	2
	C	254	1	0	226	33	514
	D	701	7	140	1	10	859
	E	4	0	0	36	2	42
	Tot.	959	9	293	985	56	2302

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 21: 2028 Peak Construction 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	303
1/2 (with short)	582(In) 428(Out)
1/3 (short)	154
2/1 (short)	36
2/2 (with short)	42(In) 6(Out)
3/1 (short)	147
3/2 (with short)	526(In) 379(Out)
3/3	333
4/1	163
4/2 (with short)	351(In) 215(Out)
4/3 (short)	136
5/1	0
5/2	2
6/1	9
7/1	293
8/1	45
8/2	93
8/3	136
9/1	544
9/2	415
10/1	8
10/2	382
10/3	336
11/1	56
12/1	338
12/2	611
12/3	154
13/1	374
13/2	611
14/1 (with short)	160(In) 157(Out)
14/2 (short)	3

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.6 %	1964	1964
				Arm 12 Ahead	Inf	96.4 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	95.2 %	1909	1909
				Arm 10 Ahead	29.20	4.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.6 %	2034	2034
				Arm 9 Ahead	Inf	99.4 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	57.2 %	2175	2175
				Arm 9 Ahead	Inf	42.8 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	0.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.9 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.1 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 22: '2028 Peak Construction 7-8AM'** (FG17: '28PC\_7-8AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	345	1117	57	1526
B	3	0	0	1	2	6	
C	485	13	0	562	80	1140	
D	1442	43	311	1	21	1818	
E	5	1	8	82	2	98	
Tot.	1942	57	664	1763	162	4588	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 22: 2028 Peak Construction 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	525
1/2 (with short)	1001(In) 649(Out)
1/3 (short)	352
2/1 (short)	82
2/2 (with short)	98(In) 16(Out)
3/1 (short)	354
3/2 (with short)	1108(In) 754(Out)
3/3	710
4/1	450
4/2 (with short)	690(In) 398(Out)
4/3 (short)	292
5/1	3
5/2	3
6/1	57
7/1	664
8/1	105
8/2	271
8/3	293
9/1	1195
9/2	747
10/1	44
10/2	755
10/3	723
11/1	162
12/1	603
12/2	1078
12/3	352
13/1	685
13/2	1078
14/1 (with short)	368(In) 355(Out)
14/2 (short)	13

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	10.9 %	1961	1961
				Arm 12 Ahead	Inf	89.1 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	87.9 %	1908	1908
				Arm 10 Ahead	29.20	12.1 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	2.9 %	2032	2032
				Arm 9 Ahead	Inf	97.1 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	87.9 %	2175	2175
				Arm 9 Ahead	Inf	12.1 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.3 %	2066	2066



Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.7 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 23: '2028 Peak Construction 8-9AM'** (FG18: '28PC\_8-9AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination						
	A	B	C	D	E	Tot.	
A	8	0	414	1390	18	1830	
B	5	0	1	13	0	19	
C	414	6	0	744	133	1297	
D	1586	49	430	0	52	2117	
E	17	3	18	129	2	169	
Tot.	2030	58	863	2276	205	5432	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 23: 2028 Peak Construction 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	649
1/2 (with short)	1181(In) 759(Out)
1/3 (short)	422
2/1 (short)	129
2/2 (with short)	169(In) 40(Out)
3/1 (short)	479
3/2 (with short)	1301(In) 822(Out)
3/3	816
4/1	420
4/2 (with short)	877(In) 491(Out)
4/3 (short)	386
5/1	5
5/2	14
6/1	58
7/1	863
8/1	187
8/2	371
8/3	387
9/1	1256
9/2	774
10/1	52
10/2	837
10/3	828
11/1	205
12/1	817
12/2	1330
12/3	423
13/1	946
13/2	1330
14/1 (with short)	463(In) 451(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	2.8 %	1964	1964
				Arm 12 Ahead	Inf	97.2 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	89.8 %	1908	1908
				Arm 10 Ahead	29.20	10.2 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.4 %	2034	2034
				Arm 9 Ahead	Inf	98.6 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 24: '2028 Peak Construction 3-4PM'** (FG19: '28PC\_3-4PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	0	388	1261	20	1670
B	4	0	1	10	2	17	
C	400	0	0	580	76	1056	
D	1372	2	623	0	140	2137	
E	11	0	180	131	2	324	
Tot.	1788	2	1192	1982	240	5204	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 24: 2028 Peak Construction 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	603
1/2 (with short)	1067(In) 678(Out)
1/3 (short)	389
2/1 (short)	131
2/2 (with short)	324(In) 193(Out)
3/1 (short)	625
3/2 (with short)	1386(In) 761(Out)
3/3	751
4/1	400
4/2 (with short)	656(In) 346(Out)
4/3 (short)	310
5/1	4
5/2	13
6/1	2
7/1	1192
8/1	220
8/2	274
8/3	317
9/1	1174
9/2	614
10/1	2
10/2	770
10/3	756
11/1	240
12/1	720
12/2	1131
12/3	390
13/1	851
13/2	1131
14/1 (with short)	583(In) 578(Out)
14/2 (short)	5

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	3.3 %	1964	1964
				Arm 12 Ahead	Inf	96.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	18.8 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	81.2 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 25: '2028 Peak Construction 5-6PM'** (FG20: '28PC\_5-6PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	373	1219	8	1600
B	20	0	0	19	6	45	
C	316	2	0	420	97	835	
D	1306	6	623	2	167	2104	
E	6	2	279	152	3	442	
Tot.	1648	10	1275	1812	281	5026	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 25: 2028 Peak Construction 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	580
1/2 (with short)	1020(In) 647(Out)
1/3 (short)	373
2/1 (short)	152
2/2 (with short)	442(In) 290(Out)
3/1 (short)	629
3/2 (with short)	1372(In) 743(Out)
3/3	732
4/1	294
4/2 (with short)	541(In) 283(Out)
4/3 (short)	258
5/1	20
5/2	25
6/1	10
7/1	1275
8/1	273
8/2	172
8/3	269
9/1	1060
9/2	588
10/1	8
10/2	748
10/3	736
11/1	281
12/1	658
12/2	1002
12/3	373
13/1	810
13/2	1002
14/1 (with short)	663(In) 659(Out)
14/2 (short)	4



Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	1.4 %	1964	1964
				Arm 12 Ahead	Inf	98.6 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.0 %	1910	1910
				Arm 10 Ahead	29.20	1.0 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	91.5 %	2175	2175
				Arm 9 Ahead	Inf	8.5 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	23.4 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	76.6 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 26: '2034 Reference Case 6-7AM' (FG31: '34RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	1	154	787	0	942
B	0	0	0	2	0	2	
C	226	1	0	257	0	484	
D	545	7	177	1	10	740	
E	4	0	0	36	0	40	
Tot.	775	9	331	1083	10	2208	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 26: 2034 Reference Case 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	332
1/2 (with short)	610(In) 455(Out)
1/3 (short)	155
2/1 (short)	36
2/2 (with short)	40(In) 4(Out)
3/1 (short)	184
3/2 (with short)	497(In) 313(Out)
3/3	243
4/1	141
4/2 (with short)	343(In) 202(Out)
4/3 (short)	141
5/1	0
5/2	2
6/1	9
7/1	331
8/1	10
8/2	117
8/3	143
9/1	456
9/2	319
10/1	8
10/2	316
10/3	244
11/1	10
12/1	390
12/2	657
12/3	155
13/1	426
13/2	657
14/1 (with short)	159(In) 158(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.0 %	1965	1965
				Arm 12 Ahead	Inf	100.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	96.2 %	1910	1910
				Arm 10 Ahead	29.20	3.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.7 %	2034	2034
				Arm 9 Ahead	Inf	99.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	57.4 %	2175	2175
				Arm 9 Ahead	Inf	42.6 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	0.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	4.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	95.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 27: '2034 Reference Case 7-8AM' (FG32: '34RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	330	1376	0	1713
B	3	0	0	1	2	6	
C	471	13	0	691	0	1175	
D	1332	47	406	1	22	1808	
E	5	0	0	82	0	87	
Tot.	1818	60	736	2151	24	4789	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 27: 2034 Reference Case 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	636
1/2 (with short)	1077(In) 740(Out)
1/3 (short)	337
2/1 (short)	82
2/2 (with short)	87(In) 5(Out)
3/1 (short)	453
3/2 (with short)	1163(In) 710(Out)
3/3	645
4/1	446
4/2 (with short)	729(In) 382(Out)
4/3 (short)	347
5/1	3
5/2	3
6/1	60
7/1	736
8/1	24
8/2	346
8/3	347
9/1	1146
9/2	672
10/1	47
10/2	710
10/3	657
11/1	24
12/1	809
12/2	1260
12/3	337
13/1	891
13/2	1260
14/1 (with short)	342(In) 330(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.0 %	1965	1965
				Arm 12 Ahead	Inf	100.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	89.6 %	1908	1908
				Arm 10 Ahead	29.20	10.4 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	2.9 %	2032	2032
				Arm 9 Ahead	Inf	97.1 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	90.1 %	2175	2175
				Arm 9 Ahead	Inf	9.9 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 28: '2034 Reference Case 8-9AM' (FG33: '34RC\_8-9AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	8	4	401	1425	0	1838
B	7	0	1	13	0	21	
C	403	7	0	835	130	1375	
D	1421	53	529	0	51	2054	
E	17	1	0	131	0	149	
Tot.	1856	65	931	2404	181	5437	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 28: 2034 Reference Case 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	659
1/2 (with short)	1179(In) 766(Out)
1/3 (short)	413
2/1 (short)	131
2/2 (with short)	149(In) 18(Out)
3/1 (short)	582
3/2 (with short)	1328(In) 746(Out)
3/3	726
4/1	410
4/2 (with short)	965(In) 540(Out)
4/3 (short)	425
5/1	7
5/2	14
6/1	65
7/1	931
8/1	181
8/2	423
8/3	426
9/1	1171
9/2	685
10/1	58
10/2	761
10/3	736
11/1	181
12/1	871
12/2	1402
12/3	414
13/1	1002
13/2	1402
14/1 (with short)	432(In) 422(Out)
14/2 (short)	10

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.0 %	1965	1965
				Arm 12 Ahead	Inf	100.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	90.9 %	1908	1908
				Arm 10 Ahead	29.20	9.1 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.7 %	2033	2033
				Arm 9 Ahead	Inf	98.3 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.9 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.1 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 29: '2034 Reference Case 3-4PM' (FG34: '34RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	1	374	1431	0	1807
B	4	0	1	12	2	19	
C	392	0	0	733	0	1125	
D	1405	2	652	0	149	2208	
E	11	1	235	141	0	388	
Tot.	1813	4	1262	2317	151	5547	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 29: 2034 Reference Case 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	689
1/2 (with short)	1118(In) 742(Out)
1/3 (short)	376
2/1 (short)	141
2/2 (with short)	388(In) 247(Out)
3/1 (short)	654
3/2 (with short)	1432(In) 778(Out)
3/3	776
4/1	392
4/2 (with short)	733(In) 370(Out)
4/3 (short)	363
5/1	4
5/2	15
6/1	4
7/1	1262
8/1	151
8/2	372
8/3	374
9/1	1183
9/2	630
10/1	4
10/2	787
10/3	779
11/1	151
12/1	875
12/2	1301
12/3	377
13/1	1016
13/2	1301
14/1 (with short)	624(In) 621(Out)
14/2 (short)	3

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.0 %	1965	1965
				Arm 12 Ahead	Inf	100.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	19.1 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	80.9 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 30: '2034 Reference Case 5-6PM' (FG35: '34RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	384	1287	0	1671
B	22	0	1	20	5	48	
C	366	2	0	530	28	926	
D	1192	6	866	2	138	2204	
E	6	2	65	157	1	231	
Tot.	1586	10	1316	1996	172	5080	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 30: 2034 Reference Case 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	614
1/2 (with short)	1057(In) 673(Out)
1/3 (short)	384
2/1 (short)	157
2/2 (with short)	231(In) 74(Out)
3/1 (short)	872
3/2 (with short)	1249(In) 377(Out)
3/3	955
4/1	334
4/2 (with short)	592(In) 304(Out)
4/3 (short)	288
5/1	22
5/2	26
6/1	10
7/1	1316
8/1	172
8/2	252
8/3	301
9/1	737
9/2	849
10/1	8
10/2	383
10/3	956
11/1	172
12/1	740
12/2	1099
12/3	385
13/1	897
13/2	1099
14/1 (with short)	459(In) 458(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.0 %	1965	1965
				Arm 12 Ahead	Inf	100.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.3 %	1910	1910
				Arm 10 Ahead	29.20	0.7 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.6 %	2034	2034
				Arm 9 Ahead	Inf	99.4 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	88.8 %	2175	2175
				Arm 9 Ahead	Inf	11.2 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	14.7 %	2066	2066



Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	85.3 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 31: '2034 Operational Forecast 6-7AM'** (FG26: '34OP\_6-7AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	1	154	743	20	918
B	0	0	0	2	0	2	
C	227	1	0	227	0	455	
D	546	7	177	1	10	741	
E	4	0	0	36	0	40	
Tot.	777	9	331	1009	30	2156	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 31: 2034 Operational Forecast 6-7AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	319
1/2 (with short)	599(In) 444(Out)
1/3 (short)	155
2/1 (short)	36
2/2 (with short)	40(In) 4(Out)
3/1 (short)	184
3/2 (with short)	497(In) 313(Out)
3/3	244
4/1	132
4/2 (with short)	323(In) 194(Out)
4/3 (short)	129
5/1	0
5/2	2
6/1	9
7/1	331
8/1	10
8/2	99
8/3	131
9/1	447
9/2	330
10/1	8
10/2	316
10/3	245
11/1	30
12/1	348
12/2	625
12/3	155
13/1	384
13/2	625
14/1 (with short)	159(In) 158(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	6.3 %	1962	1962
				Arm 12 Ahead	Inf	93.7 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	96.2 %	1910	1910
				Arm 10 Ahead	29.20	3.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.8 %	2034	2034
				Arm 9 Ahead	Inf	99.2 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	50.5 %	2175	2175
				Arm 9 Ahead	Inf	49.5 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	0.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	4.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	95.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 32: '2034 Operational Forecast 7-8AM' (FG27: '34OP\_7-8AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	7	0	324	1187	39	1557
B	3	0	0	1	2	6	
C	466	13	0	566	50	1095	
D	1338	45	341	1	22	1747	
E	5	1	3	82	0	91	
Tot.	1819	59	668	1837	113	4496	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 32: 2034 Operational Forecast 7-8AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	555
1/2 (with short)	1002(In) 671(Out)
1/3 (short)	331
2/1 (short)	82
2/2 (with short)	91(In) 9(Out)
3/1 (short)	386
3/2 (with short)	1095(In) 709(Out)
3/3	652
4/1	423
4/2 (with short)	672(In) 378(Out)
4/3 (short)	294
5/1	3
5/2	3
6/1	59
7/1	668
8/1	74
8/2	273
8/3	295
9/1	1122
9/2	697
10/1	46
10/2	709
10/3	664
11/1	113
12/1	652
12/2	1103
12/3	331
13/1	734
13/2	1103
14/1 (with short)	340(In) 328(Out)
14/2 (short)	12

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	7.0 %	1962	1962
				Arm 12 Ahead	Inf	93.0 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	88.3 %	1908	1908
				Arm 10 Ahead	29.20	11.7 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	3.1 %	2032	2032
				Arm 9 Ahead	Inf	96.9 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	85.2 %	2175	2175
				Arm 9 Ahead	Inf	14.8 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	3.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	96.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

Scenario 33: '2034 Operational Forecast 8-9AM' (FG28: '34OP\_8-9AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	8	4	437	1403	32	1884
B	7	0	1	13	0	21	
C	371	7	0	792	183	1353	
D	1560	51	445	0	53	2109	
E	17	4	42	133	0	196	
Tot.	1963	66	925	2341	268	5563	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 33: 2034 Operational Forecast 8-9AM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	663
1/2 (with short)	1221(In) 772(Out)
1/3 (short)	449
2/1 (short)	133
2/2 (with short)	196(In) 63(Out)
3/1 (short)	496
3/2 (with short)	1305(In) 809(Out)
3/3	804
4/1	378
4/2 (with short)	975(In) 569(Out)
4/3 (short)	406
5/1	7
5/2	14
6/1	66
7/1	925
8/1	236
8/2	399
8/3	407
9/1	1203
9/2	760
10/1	59
10/2	825
10/3	813
11/1	268
12/1	831
12/2	1377
12/3	450
13/1	964
13/2	1377
14/1 (with short)	513(In) 504(Out)
14/2 (short)	9



Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	4.8 %	1963	1963
				Arm 12 Ahead	Inf	95.2 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	89.7 %	1908	1908
				Arm 10 Ahead	29.20	10.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	1.9 %	2033	2033
				Arm 9 Ahead	Inf	98.1 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	6.5 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	93.5 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 34: '2034 Operational Forecast 3-4PM'** (FG29: '34OP\_3-4PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	1	1	371	1364	6	1743
B	4	0	1	10	3	18	
C	386	0	0	603	54	1043	
D	1414	2	652	0	147	2215	
E	11	1	242	163	0	417	
Tot.	1816	4	1266	2140	210	5436	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 34: 2034 Operational Forecast 3-4PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	654
1/2 (with short)	1089(In) 716(Out)
1/3 (short)	373
2/1 (short)	163
2/2 (with short)	417(In) 254(Out)
3/1 (short)	654
3/2 (with short)	1435(In) 781(Out)
3/3	780
4/1	386
4/2 (with short)	657(In) 342(Out)
4/3 (short)	315
5/1	4
5/2	14
6/1	4
7/1	1266
8/1	204
8/2	290
8/3	324
9/1	1181
9/2	635
10/1	4
10/2	791
10/3	782
11/1	210
12/1	793
12/2	1184
12/3	374
13/1	956
13/2	1184
14/1 (with short)	628(In) 626(Out)
14/2 (short)	2

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	0.9 %	1965	1965
				Arm 12 Ahead	Inf	99.1 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.7 %	1910	1910
				Arm 10 Ahead	29.20	0.3 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.0 %	2035	2035
				Arm 9 Ahead	Inf	100.0 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
				Arm 9 Ahead	Inf	0.0 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	18.8 %	2066	2066

Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	81.2 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

**Scenario 35: '2034 Operational Forecast 5-6PM'** (FG30: '34OP\_5-6PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	0	374	1279	16	1669
B	22	0	1	20	5	48	
C	348	2	0	515	73	938	
D	1208	7	879	2	139	2235	
E	6	2	117	158	1	284	
Tot.	1584	11	1371	1974	234	5174	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 35: 2034 Operational Forecast 5-6PM
<b>Junction: J25 - A12 / Main Road / P&amp;R</b>	
1/1	619
1/2 (with short)	1050(In) 676(Out)
1/3 (short)	374
2/1 (short)	158
2/2 (with short)	284(In) 126(Out)
3/1 (short)	886
3/2 (with short)	1263(In) 377(Out)
3/3	972
4/1	341
4/2 (with short)	597(In) 308(Out)
4/3 (short)	289
5/1	22
5/2	26
6/1	11
7/1	1371
8/1	218
8/2	238
8/3	300
9/1	744
9/2	840
10/1	9
10/2	383
10/3	973
11/1	234
12/1	722
12/2	1094
12/3	375
13/1	880
13/2	1094
14/1 (with short)	501(In) 500(Out)
14/2 (short)	1

Full Input Data And Results

**Lane Saturation Flows**

Junction: J25 - A12 / Main Road / P&R								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A12 North)	3.50	0.00	Y	Arm 11 Left	71.50	2.6 %	1964	1964
				Arm 12 Ahead	Inf	97.4 %		
1/2 (A12 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
1/3 (A12 North)	3.60	0.00	N	Arm 12 Ahead	Inf	100.0 %	2115	2115
2/1 (Main Road (E))	3.85	0.00	Y	Arm 13 Left	17.80	100.0 %	1845	1845
2/2 (Main Road (E) Lane 2)	This lane uses a directly entered Saturation Flow						950	950
3/1 (A12 South)	3.70	0.00	Y	Arm 7 Left	38.50	99.2 %	1910	1910
				Arm 10 Ahead	29.20	0.8 %		
3/2 (A12 South)	3.70	0.00	N	Arm 10 Ahead	56.10	100.0 %	2070	2070
3/3 (A12 South)	3.70	0.00	N	Arm 10 Ahead	77.10	100.0 %	2084	2084
4/1 (A1214 Main Road (W))	4.20	0.00	Y	Arm 6 Left	31.40	0.6 %	2034	2034
				Arm 9 Ahead	Inf	99.4 %		
4/2 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	97.1 %	2175	2175
				Arm 9 Ahead	Inf	2.9 %		
4/3 (A1214 Main Road (W))	4.20	0.00	N	Arm 8 Ahead	Inf	100.0 %	2175	2175
5/1 (Park and Ride Exit)	3.80	0.00	Y	Arm 9 Left	Inf	100.0 %	1995	1995
5/2 (Park and Ride Exit)	3.70	0.00	N	Arm 8 Ahead	Inf	100.0 %	2125	2125
6/1 (Park and Ride Entry Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A1214 Main Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Internal 1)	4.70	0.00	Y	Arm 11 Ahead	32.60	100.0 %	1993	1993
8/2 (Internal 1)	4.80	0.00	N	Arm 12 Right	32.60	100.0 %	2137	2137
8/3 (Internal 1)	4.70	0.00	N	Arm 12 Right	32.60	100.0 %	2127	2127
9/1 (A12 North Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A12 North Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Internal 2)	4.10	0.00	Y	Arm 6 Ahead	31.20	100.0 %	1932	1932
10/2 (Internal 2)	4.10	0.00	N	Arm 9 Right	31.20	100.0 %	2066	2066
10/3	4.10	0.00	N	Arm 8 Right	31.20	14.6 %	2066	2066

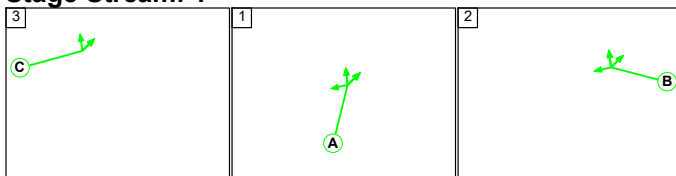
Full Input Data And Results

(Internal 2)	Arm 9 Right	31.20	85.4 %		
11/1 (Main Road (E) Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
12/1 (Internal 4 Lane 1)	Infinite Saturation Flow			Inf	Inf
12/2 (Internal 4 Lane 2)	Infinite Saturation Flow			Inf	Inf
12/3 (Internal 4 Lane 3)	Infinite Saturation Flow			Inf	Inf
13/1 (A12 South Exit Lane 1)	Infinite Saturation Flow			Inf	Inf
13/2 (A12 South Exit Lane 2)	Infinite Saturation Flow			Inf	Inf
14/1 (Internal 3 Lane 1)	This lane uses a directly entered Saturation Flow			1800	1800
14/2 (Internal 3 Lane 2)	This lane uses a directly entered Saturation Flow			1800	1800

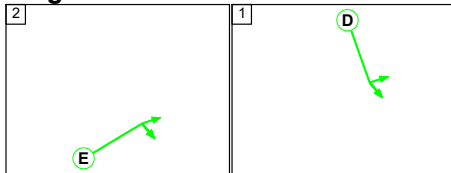
Scenario 1: '2019 Base Year 6-7AM' (FG1: '17BY\_6-7AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

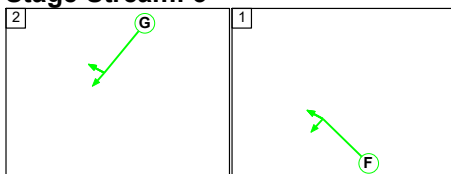
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

Stage Stream: 2

Stage	2	1
Duration	9	41
Change Point	32	46

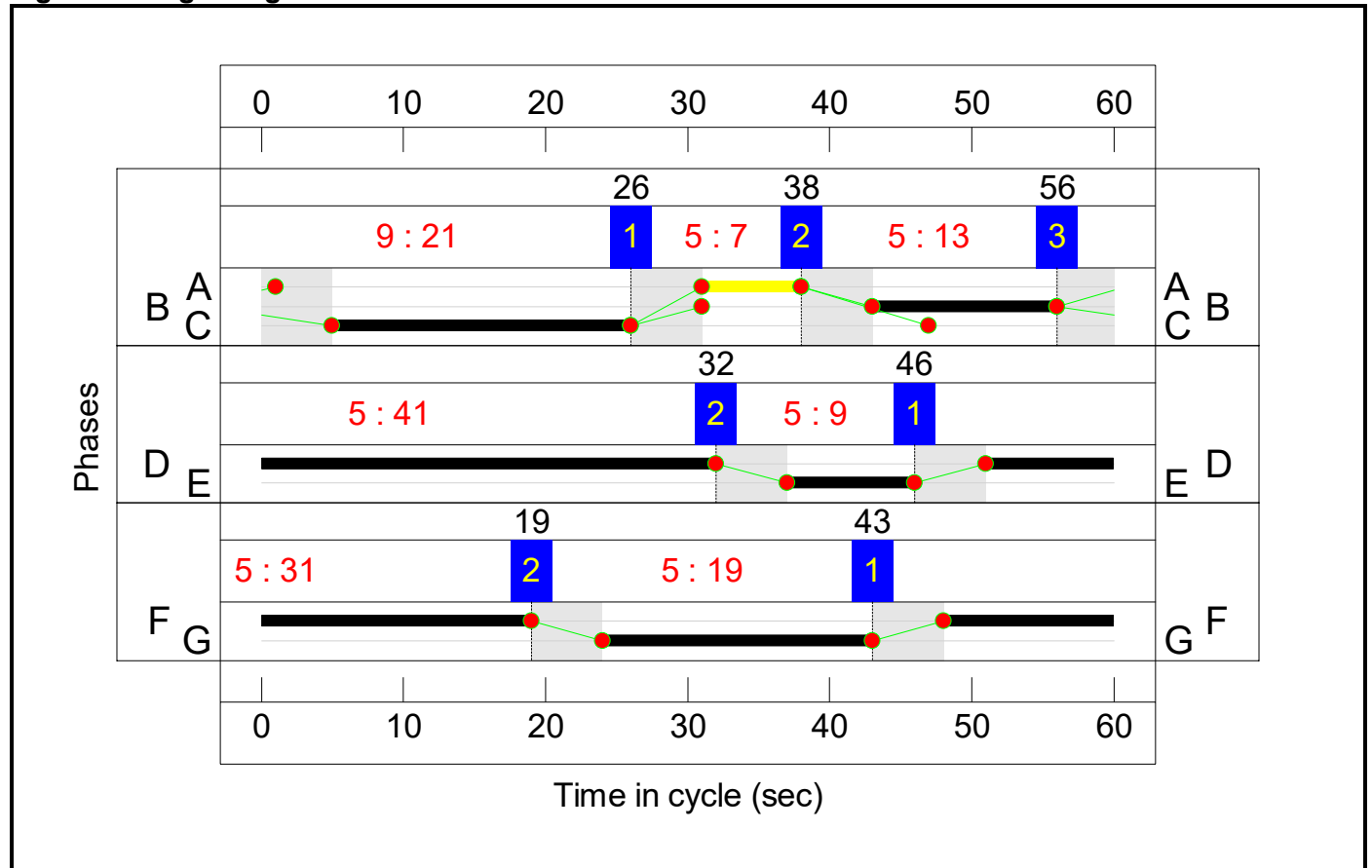


Full Input Data And Results

**Stage Stream: 3**

Stage	2	1
Duration	19	31
Change Point	19	43

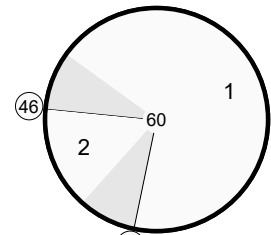
**Signal Timings Diagram**



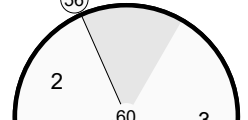
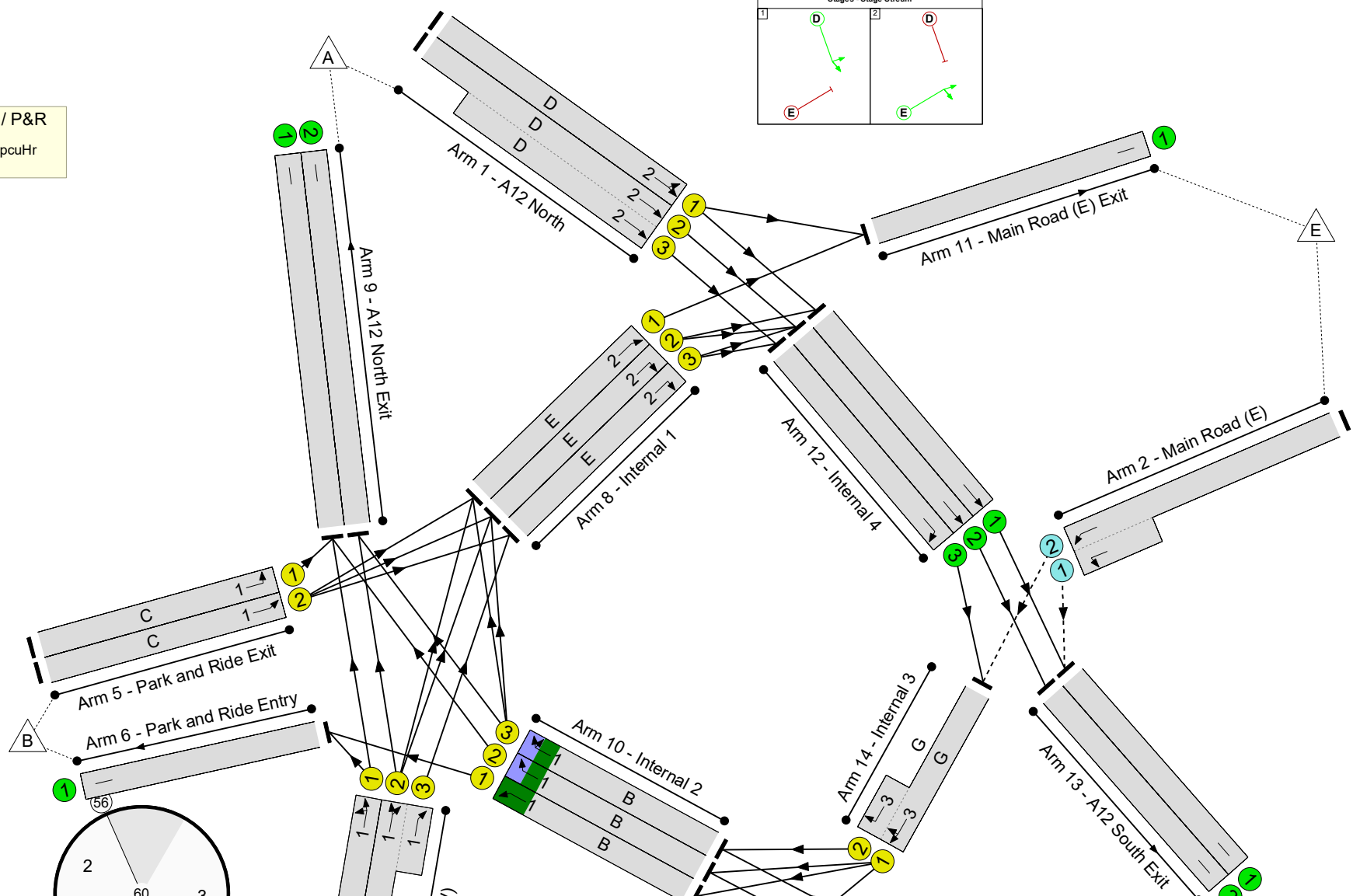
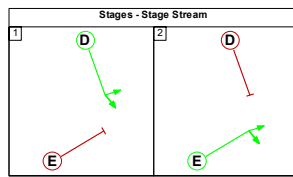
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 33.8 %  
 Total Traffic Delay: 9.6 pcuHr



C1 - PEED TS32SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>67.3%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>67.3%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	270	1965	1375	19.6%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	543	2105:2115	1320+481	30.2 : 30.2%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	40	950:1845	72+645	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	412	2070:1910	1058+533	25.9 : 25.9%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	213	2084	1111	19.2%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	123	2034	271	45.4%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	315	2175:2175	281+187	67.3 : 67.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	0	1995	732	0.0%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	44	1993	332	13.2%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	99	2137	356	27.8%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	128	2127	354	36.1%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	399	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	6	1932	966	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	277	2066	1033	26.8%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	214	2066	1033	20.7%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	45	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	149	1800:1800	600+4	24.7 : 24.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	80	0	0	6.4	3.1	0.0	9.6	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	80	0	0	6.4	3.1	0.0	9.6	-	-	-	-
1/1	270	270	-	-	-	0.2	0.1	-	0.4	4.8	1.5	0.1	1.6
1/2+1/3	543	543	-	-	-	0.5	0.2	-	0.7	4.7	2.4	0.2	2.6
2/2+2/1	40	40	80	0	0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
3/2+3/1	412	412	-	-	-	0.8	0.2	-	1.0	8.9	2.4	0.2	2.6
3/3	213	213	-	-	-	0.4	0.1	-	0.5	9.3	1.8	0.1	2.0
4/1	123	123	-	-	-	0.8	0.4	-	1.2	36.1	1.9	0.4	2.3
4/2+4/3	315	315	-	-	-	2.1	1.0	-	3.1	36.0	2.9	1.0	4.0
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	44	44	-	-	-	0.1	0.1	-	0.2	15.3	0.2	0.1	0.3
8/2	99	99	-	-	-	0.0	0.2	-	0.2	8.6	0.2	0.2	0.4
8/3	128	128	-	-	-	0.0	0.3	-	0.3	9.3	0.7	0.3	0.9
9/1	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	6	6	-	-	-	0.0	0.0	-	0.0	6.9	0.0	0.0	0.0
10/2	277	277	-	-	-	0.4	0.2	-	0.6	7.5	1.0	0.2	1.2
10/3	214	214	-	-	-	0.3	0.1	-	0.4	7.3	0.7	0.1	0.9
11/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

13/2	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	149	149	-	-	-	0.6	0.2	-	0.7	17.7	1.9	0.2	2.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		33.8	Total Delay for Signalled Lanes (pcuHr)		5.41	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		149.3	Total Delay for Signalled Lanes (pcuHr)		1.81	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		247.6	Total Delay for Signalled Lanes (pcuHr)		2.30	Cycle Time (s)		60			
		PRC Over All Lanes (%)		33.8	Total Delay Over All Lanes(pcuHr)		9.56						

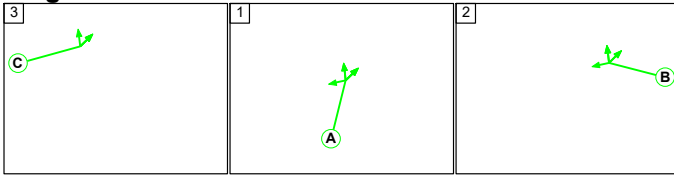


Full Input Data And Results

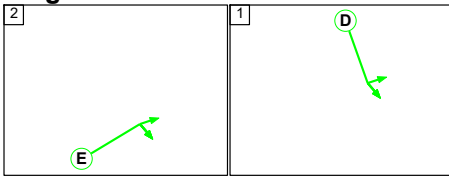
Scenario 2: '2019 Base Year 7-8AM' (FG2: '17BY\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

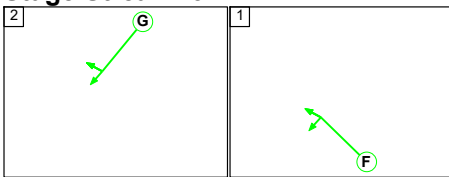
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

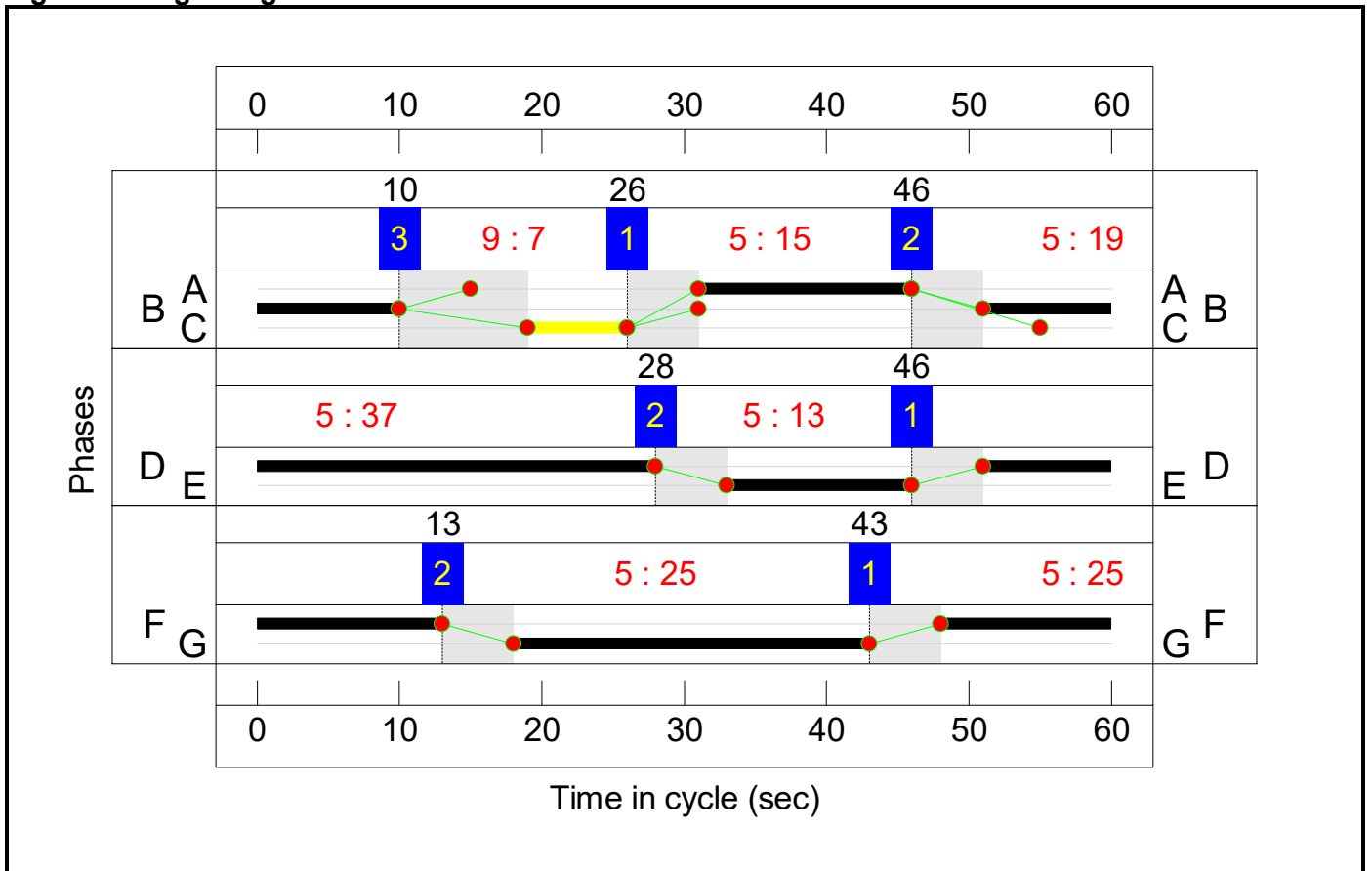
Stage Stream: 2

Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43

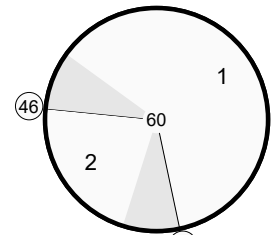
**Signal Timings Diagram**



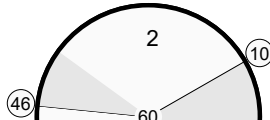
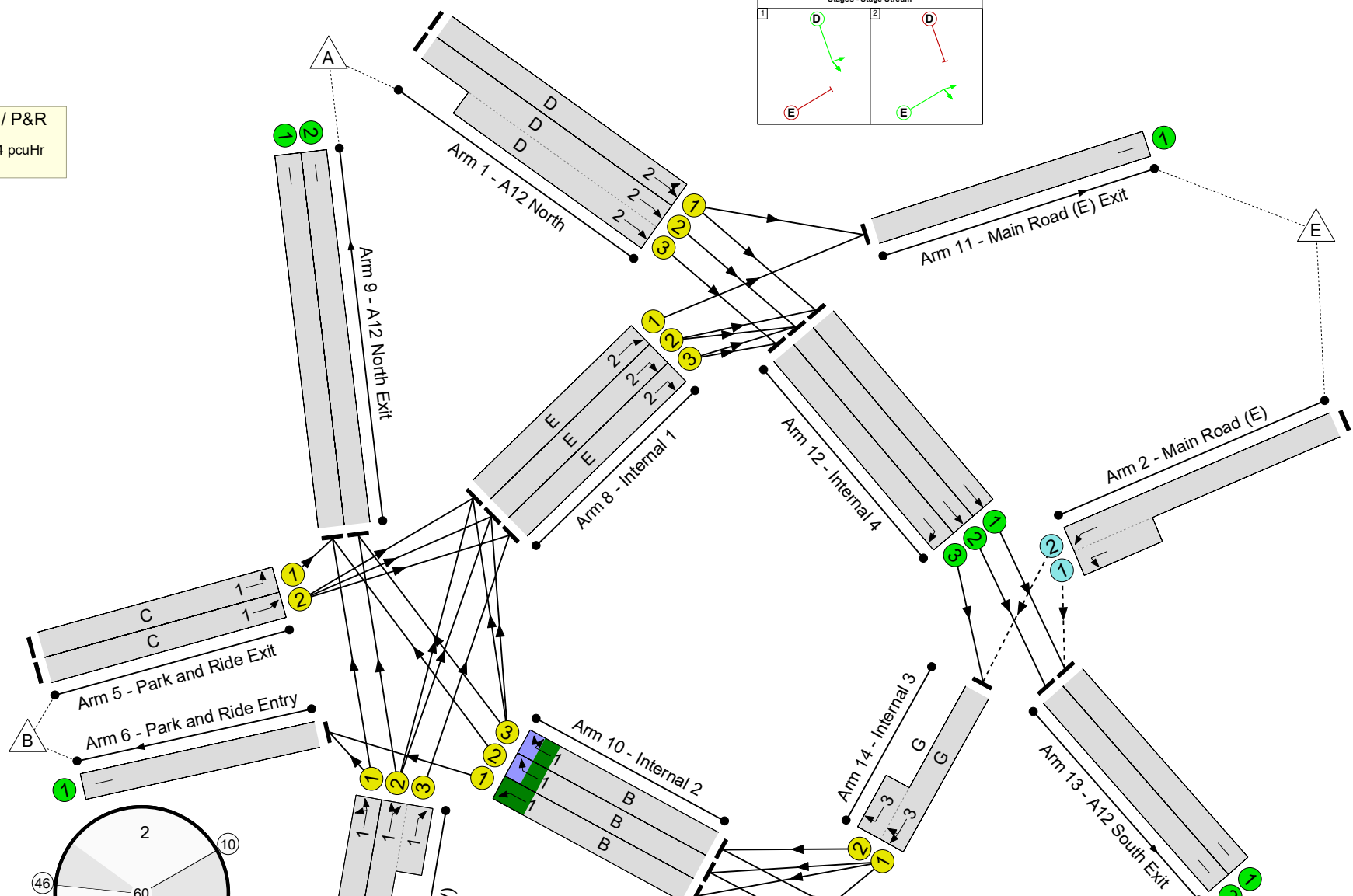
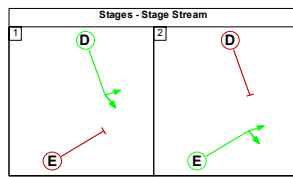
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 5.2 %  
 Total Traffic Delay: 26.4 pcuHr



C1 - PEED TSC SE28 ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>85.5%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>85.5%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	488	1965	1244	39.2%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	965	2105:2115	1178+667	52.3 : 52.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	83	950:1845	37+578	13.5 : 13.5%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	929	2070:1908	897+497	66.7 : 66.7%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	529	2084	903	58.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	421	2032	542	77.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	670	2175:2175	442+341	85.5 : 85.5%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	4	2125	283	1.4%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	54	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	105	1993	465	22.6%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	271	2137	499	54.3%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	292	2127	496	58.8%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1009	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	547	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	41	1932	1095	3.7%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	598	2066	1171	51.1%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	541	2066	1171	46.2%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	107	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	621	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1044	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1044	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	354	1800:1800	772+27	44.3 : 44.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>166</b>	<b>0</b>	<b>0</b>	<b>16.4</b>	<b>10.0</b>	<b>0.0</b>	<b>26.4</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>166</b>	<b>0</b>	<b>0</b>	<b>16.4</b>	<b>10.0</b>	<b>0.0</b>	<b>26.4</b>	-	-	-	-
1/1	488	488	-	-	-	0.7	0.3	-	1.1	7.7	3.9	0.3	4.3
1/2+1/3	965	965	-	-	-	1.4	0.5	-	2.0	7.4	5.3	0.5	5.9
2/2+2/1	83	83	166	0	0	0.0	0.1	-	0.1	3.4	0.0	0.1	0.1
3/2+3/1	929	929	-	-	-	3.3	1.0	-	4.3	16.7	7.8	1.0	8.8
3/3	529	529	-	-	-	1.9	0.7	-	2.6	17.7	6.6	0.7	7.3
4/1	421	421	-	-	-	2.4	1.7	-	4.1	34.8	6.4	1.7	8.1
4/2+4/3	670	670	-	-	-	3.6	2.8	-	6.4	34.6	7.2	2.8	10.0
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	4	4	-	-	-	0.0	0.0	-	0.0	29.4	0.1	0.0	0.1
6/1	54	54	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	105	105	-	-	-	0.3	0.1	-	0.5	16.8	0.6	0.1	0.8
8/2	271	271	-	-	-	0.7	0.6	-	1.3	17.1	1.0	0.6	1.6
8/3	292	292	-	-	-	0.7	0.7	-	1.4	17.5	1.0	0.7	1.7
9/1	1009	1009	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	547	547	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	41	41	-	-	-	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
10/2	598	598	-	-	-	0.0	0.5	-	0.5	3.2	0.0	0.5	0.5
10/3	541	541	-	-	-	0.0	0.4	-	0.5	3.1	0.1	0.4	0.5
11/1	107	107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	621	621	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1044	1044	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0



### Full Input Data And Results

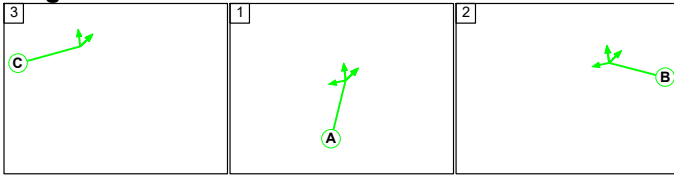
13/2	1044	1044	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	354	354	-	-	-	1.2	0.4	-	1.6	16.1	4.8	0.4	5.2
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		5.2	Total Delay for Signalled Lanes (pcuHr)		11.59	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		53.0	Total Delay for Signalled Lanes (pcuHr)		6.24	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		35.0	Total Delay for Signalled Lanes (pcuHr)		8.51	Cycle Time (s)		60			
		PRC Over All Lanes (%)		5.2	Total Delay Over All Lanes(pcuHr)		26.41						

Full Input Data And Results

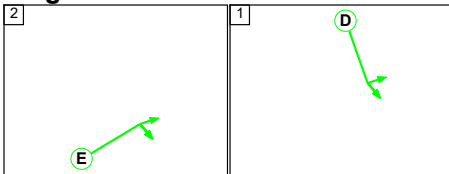
Scenario 3: '2019 Base Year 8-9AM' (FG3: '17BY\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

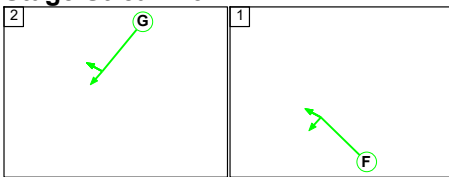
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

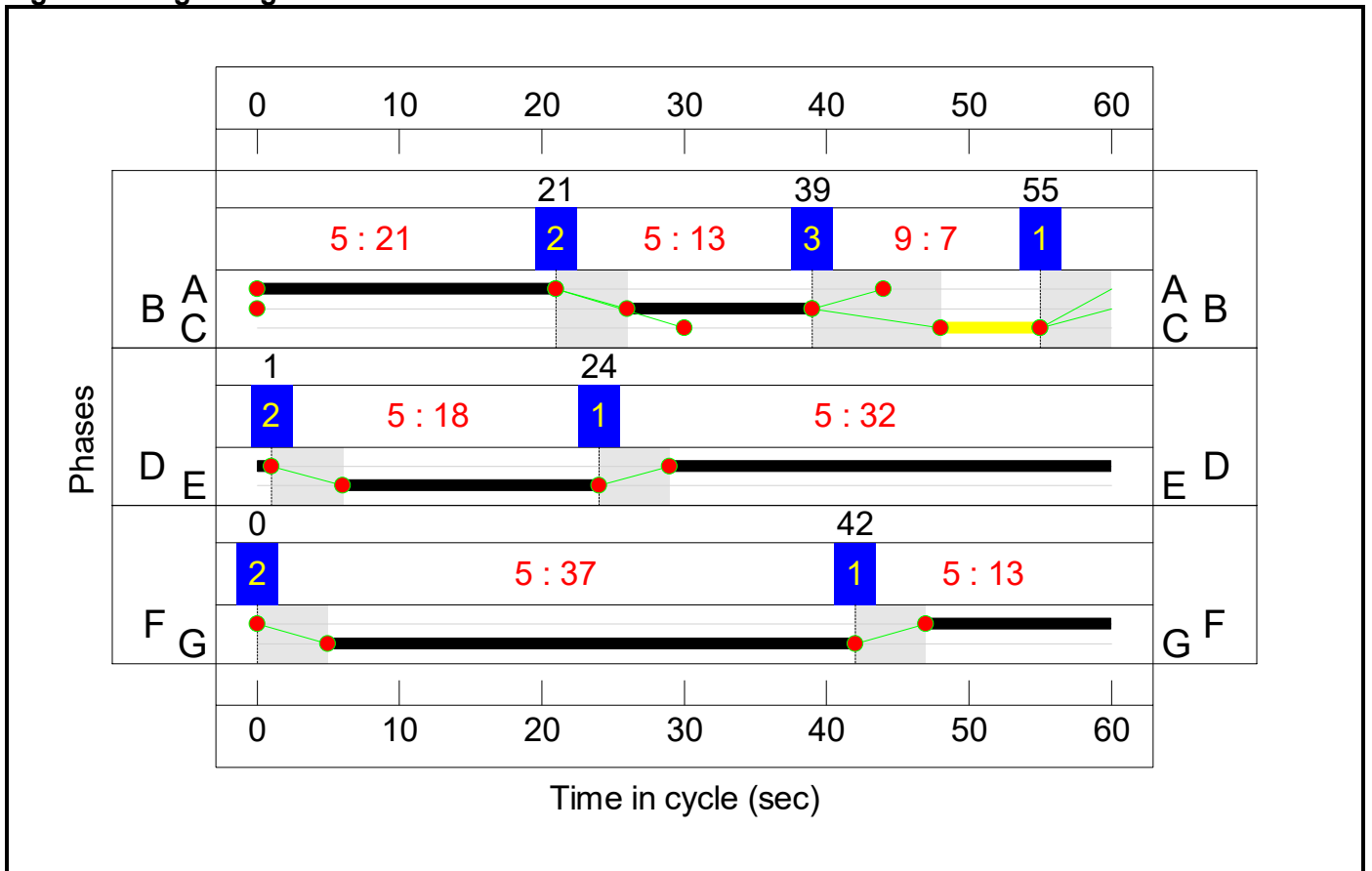
Stage Stream: 2

Stage	2	1
Duration	18	32
Change Point	1	24

Stage Stream: 3

Stage	2	1
Duration	37	13
Change Point	0	42

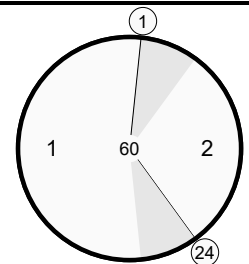
Signal Timings Diagram



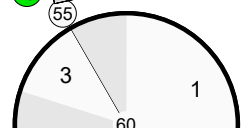
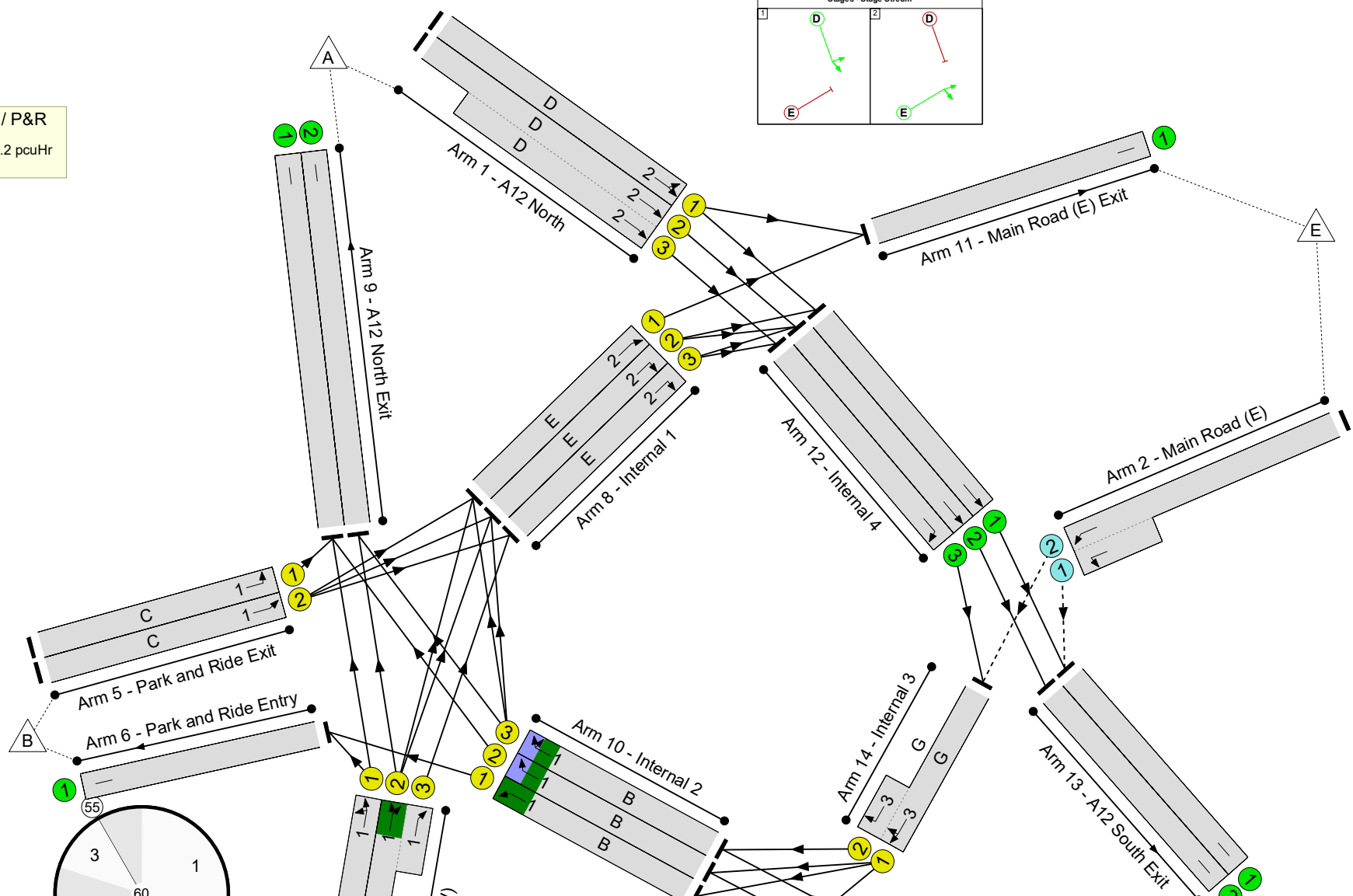
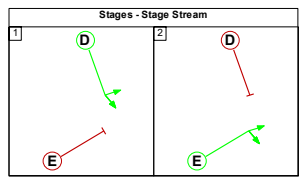
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -62.4 %  
 Total Traffic Delay: 288.2 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	146.2%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	146.2%
1/1	A12 North Left Ahead	U	2	N/A	D		1	32	-	601	1965	1081	55.6%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	32	-	1115	2105:2115	1067+595	67.1 : 67.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	146	950:1845	81+543	23.4 : 23.4%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	13	-	1136	2070:1908	483+385	146.2 : 111.6%
3/3	A12 South Ahead	U	3	N/A	F		1	13	-	683	2084	486	140.5%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	386	2033	745	51.8%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	838	2175:2175	513+432	88.7 : 88.7%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	5	1995	266	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	18	-	141	1993	631	20.3%
8/2	Internal 1 Right	U	2	N/A	E		1	18	-	371	2137	677	54.8%
8/3	Internal 1 Right	U	2	N/A	E		1	18	-	384	2127	674	57.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	50	1932	902	5.5%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	719	2066	964	51.4%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	695	2066	964	51.7%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	148	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	780	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1284	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	400	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1284	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	37	-	419	1800:1800	1125+33	36.2 : 36.2%



Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>292</b>	<b>0</b>	<b>0</b>	<b>43.4</b>	<b>244.8</b>	<b>0.0</b>	<b>288.2</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>292</b>	<b>0</b>	<b>0</b>	<b>43.4</b>	<b>244.8</b>	<b>0.0</b>	<b>288.2</b>	-	-	-	-
1/1	601	601	-	-	-	1.5	0.6	-	2.1	12.5	6.3	0.6	7.0
1/2+1/3	1115	1115	-	-	-	2.7	1.0	-	3.7	11.9	8.0	1.0	9.0
2/2+2/1	146	146	292	0	0	0.0	0.2	-	0.2	4.0	0.1	0.2	0.2
3/2+3/1	1136	913	-	-	-	13.2	135.9	-	149.1	472.4	17.2	135.9	153.1
3/3	683	486	-	-	-	11.2	100.1	-	111.2	586.3	17.4	100.1	117.4
4/1	386	386	-	-	-	1.6	0.5	-	2.1	19.8	4.9	0.5	5.5
4/2+4/3	838	838	-	-	-	3.9	3.7	-	7.5	32.3	9.5	3.7	13.2
5/1	5	5	-	-	-	0.0	0.0	-	0.0	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	128	128	-	-	-	0.3	0.1	-	0.4	10.8	0.7	0.1	0.8
8/2	371	371	-	-	-	0.2	0.6	-	0.8	7.7	1.2	0.6	1.8
8/3	384	384	-	-	-	0.3	0.7	-	1.0	9.1	2.5	0.7	3.2
9/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	50	50	-	-	-	0.3	0.0	-	0.3	24.3	0.7	0.0	0.7
10/2	496	496	-	-	-	3.7	0.5	-	4.3	30.9	7.1	0.5	7.7
10/3	498	498	-	-	-	3.8	0.5	-	4.3	31.0	7.2	0.5	7.7
11/1	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	780	780	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	400	400	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	907	907	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

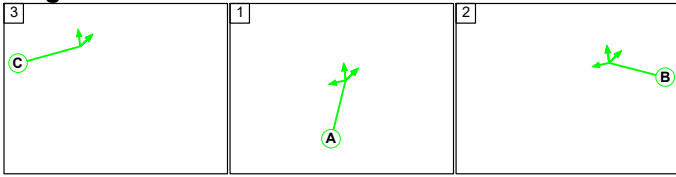
13/2	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	419	419	-	-	-	0.8	0.3	-	1.1	9.6	5.5	0.3	5.7
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		1.5		Total Delay for Signalled Lanes (pcuHr)		18.71		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		34.1		Total Delay for Signalled Lanes (pcuHr)		7.91		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-62.4		Total Delay for Signalled Lanes (pcuHr)		261.44		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-62.4		Total Delay Over All Lanes(pcuHr)		288.23					

Full Input Data And Results

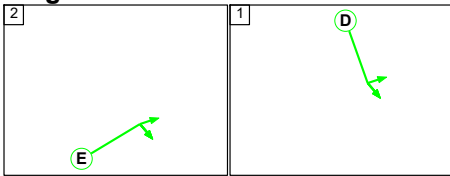
Scenario 4: '2019 Base Year 3-4PM' (FG4: '17BY\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

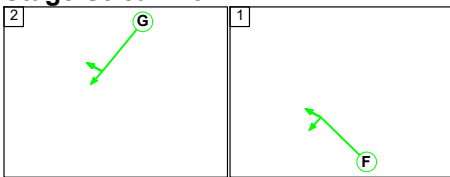
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

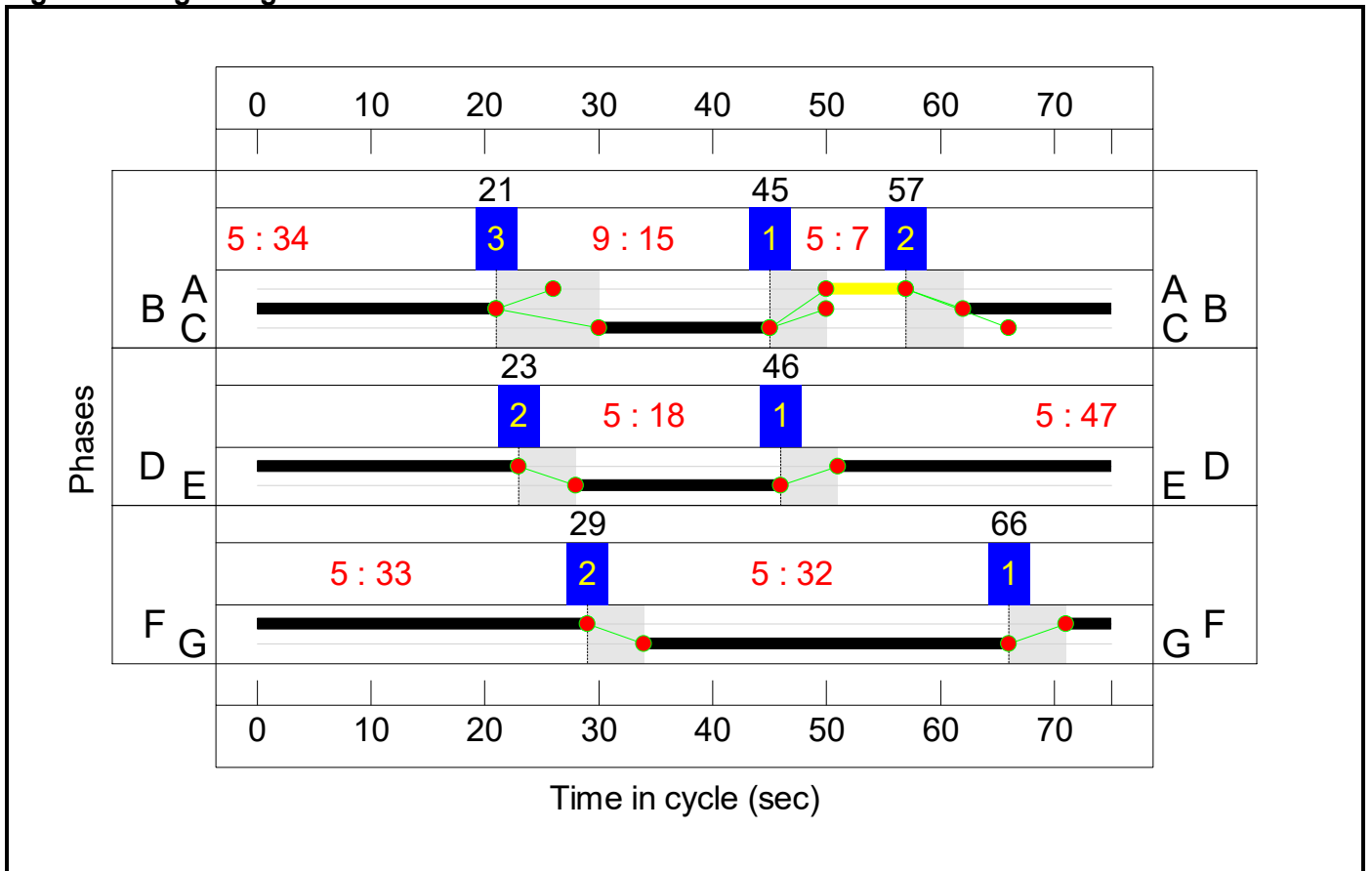
Stage Stream: 2

Stage	2	1
Duration	18	47
Change Point	23	46

Stage Stream: 3

Stage	2	1
Duration	32	33
Change Point	29	66

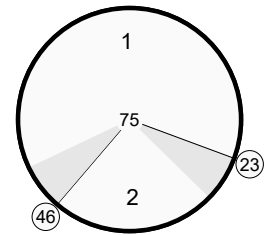
Signal Timings Diagram



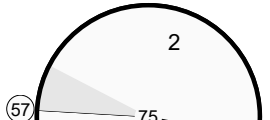
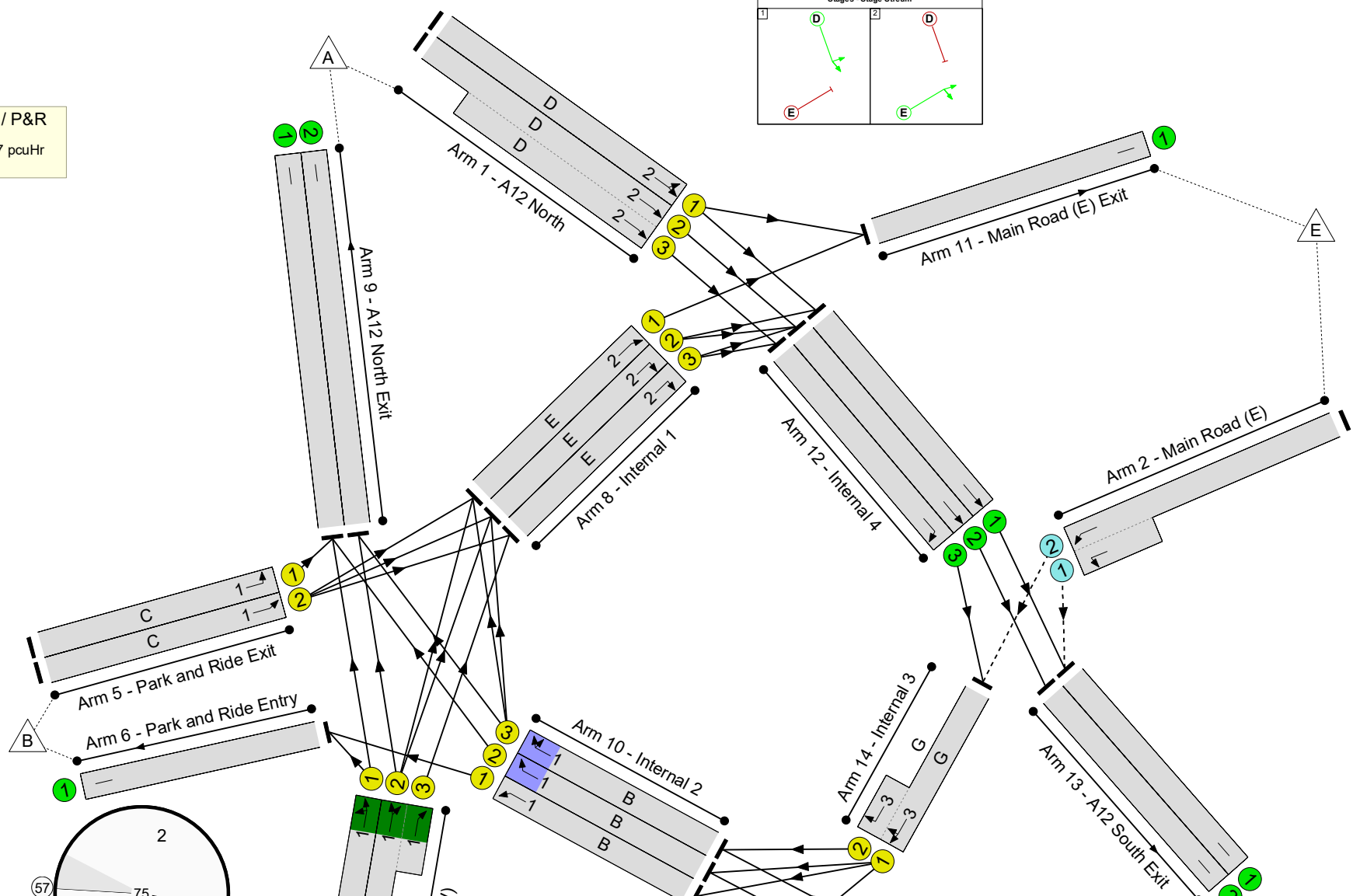
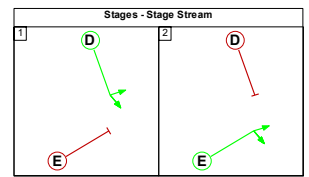
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 12.2 %  
 Total Traffic Delay: 40.7 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.2%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.2%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	47	-	527	1964	1257	41.9%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	47	-	995	2105:2115	1110+683	55.5 : 55.5%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	229	950:1845	307+382	33.2 : 33.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	33	-	1302	2070:1910	860+763	80.2 : 80.2%
3/3	A12 South Ahead	U	3	N/A	F		1	33	-	650	2084	945	68.8%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	373	2035	597	62.5%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	641	2175:2175	431+399	77.3 : 77.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	4	1995	426	0.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	9	2125	453	2.0%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1079	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	18	-	156	1993	505	30.9%
8/2	Internal 1 Right	U	2	N/A	E		1	18	-	288	2137	541	53.2%
8/3	Internal 1 Right	U	2	N/A	E		1	18	-	314	2127	539	58.3%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1075	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%



Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	2	1932	902	0.2%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	698	2066	964	72.4%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	654	2066	964	67.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	168	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1074	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	786	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1074	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	32	-	481	1800:1800	792+7	60.2 : 60.2%

Full Input Data And Results

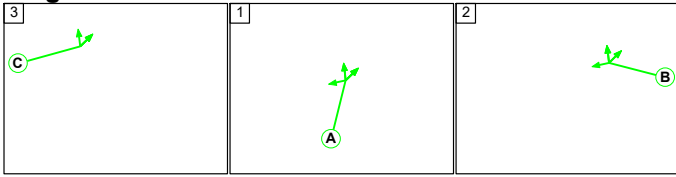
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>458</b>	<b>0</b>	<b>0</b>	<b>29.2</b>	<b>11.4</b>	<b>0.0</b>	<b>40.7</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>458</b>	<b>0</b>	<b>0</b>	<b>29.2</b>	<b>11.4</b>	<b>0.0</b>	<b>40.7</b>	-	-	-	-
1/1	527	527	-	-	-	1.0	0.4	-	1.3	9.1	5.3	0.4	5.6
1/2+1/3	995	995	-	-	-	1.8	0.6	-	2.4	8.8	6.5	0.6	7.1
2/2+2/1	229	229	458	0	0	0.0	0.2	-	0.3	4.6	0.5	0.2	0.7
3/2+3/1	1302	1302	-	-	-	6.0	2.0	-	8.0	22.2	11.7	2.0	13.7
3/3	650	650	-	-	-	2.9	1.1	-	4.0	22.4	10.7	1.1	11.7
4/1	373	373	-	-	-	2.4	0.8	-	3.2	30.9	6.6	0.8	7.5
4/2+4/3	641	641	-	-	-	4.0	1.7	-	5.6	31.7	8.0	1.7	9.6
5/1	4	4	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	9	9	-	-	-	0.1	0.0	-	0.1	27.7	0.1	0.0	0.2
6/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	156	156	-	-	-	0.9	0.2	-	1.2	26.8	2.9	0.2	3.1
8/2	288	288	-	-	-	2.6	0.6	-	3.2	39.9	3.7	0.6	4.3
8/3	314	314	-	-	-	2.7	0.7	-	3.4	38.7	3.8	0.7	4.5
9/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	8.4	0.0	0.0	0.0
10/2	698	698	-	-	-	1.4	1.3	-	2.7	13.9	3.0	1.3	4.3
10/3	654	654	-	-	-	1.2	1.0	-	2.3	12.4	2.6	1.0	3.6
11/1	168	168	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1074	1074	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	786	786	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

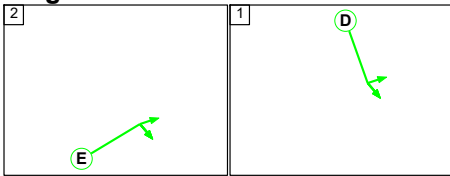
13/2	1074	1074	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	481	481	-	-	-	2.2	0.8	-	2.9	21.8	6.0	0.8	6.8
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		16.5	Total Delay for Signalled Lanes (pcuHr)		13.91	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		54.4	Total Delay for Signalled Lanes (pcuHr)		11.48	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		12.2	Total Delay for Signalled Lanes (pcuHr)		14.97	Cycle Time (s)		75			
		PRC Over All Lanes (%)		12.2	Total Delay Over All Lanes(pcuHr)		40.65						

**Stage Sequence Diagram**

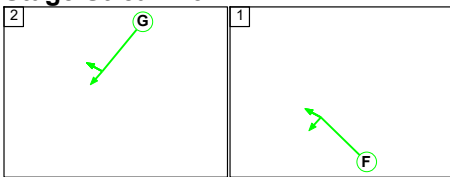
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

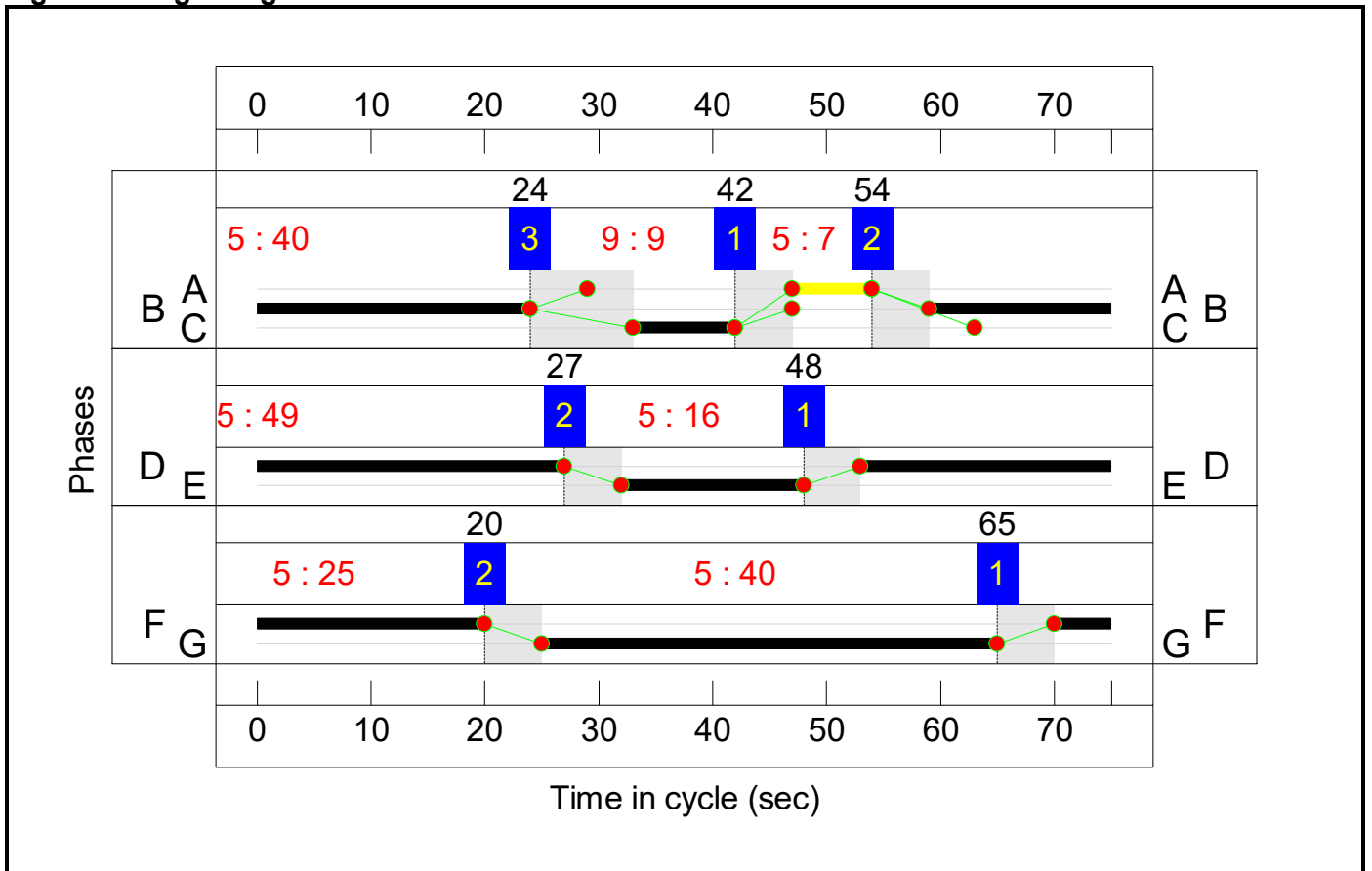
**Stage Stream: 2**

Stage	2	1
Duration	16	49
Change Point	27	48

**Stage Stream: 3**

Stage	2	1
Duration	40	25
Change Point	20	65

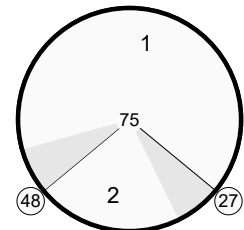
**Signal Timings Diagram**



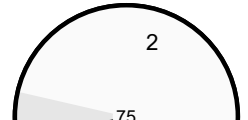
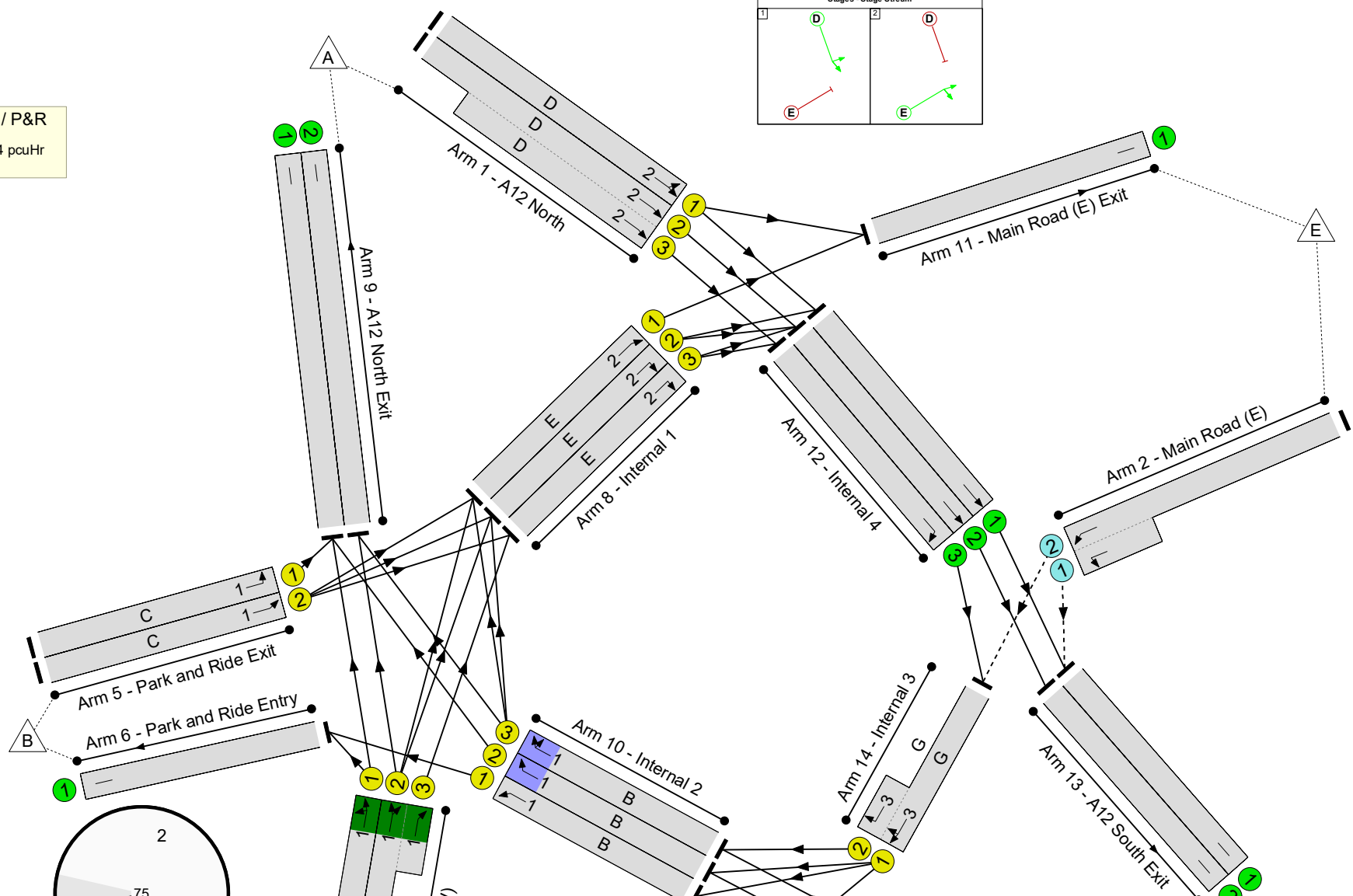
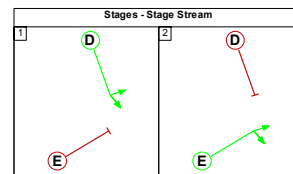
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -5.9 %  
 Total Traffic Delay: 43.4 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>95.3%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>95.3%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	49	-	472	1964	1309	36.0%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	49	-	947	2105:2115	1134+747	50.3 : 50.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	288	950:1845	338+353	41.7 : 41.7%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1314	2070:1910	718+662	95.2 : 95.3%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	648	2084	722	89.7%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	302	2034	597	50.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	554	2175:2175	430+400	66.7 : 66.7%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	20	1995	266	7.5%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	22	2125	283	7.8%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	16	-	211	1993	452	46.7%
8/2	Internal 1 Right	U	2	N/A	E		1	16	-	200	2137	484	41.3%
8/3	Internal 1 Right	U	2	N/A	E		1	16	-	281	2127	482	58.3%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	688	2066	1129	60.9%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	650	2066	1129	57.6%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	218	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	952	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	712	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	952	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	40	-	517	1800:1800	984+4	52.3 : 52.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>576</b>	<b>0</b>	<b>0</b>	<b>25.2</b>	<b>18.2</b>	<b>0.0</b>	<b>43.4</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>576</b>	<b>0</b>	<b>0</b>	<b>25.2</b>	<b>18.2</b>	<b>0.0</b>	<b>43.4</b>	-	-	-	-
1/1	472	472	-	-	-	0.7	0.3	-	1.0	7.6	4.2	0.3	4.5
1/2+1/3	947	947	-	-	-	1.4	0.5	-	1.9	7.4	5.4	0.5	5.9
2/2+2/1	288	288	576	0	0	0.0	0.4	-	0.4	5.0	0.6	0.4	1.0
3/2+3/1	1314	1314	-	-	-	8.7	8.0	-	16.8	45.9	13.8	8.0	21.9
3/3	648	648	-	-	-	4.2	3.9	-	8.1	45.1	12.8	3.9	16.7
4/1	302	302	-	-	-	1.8	0.5	-	2.4	28.1	5.2	0.5	5.7
4/2+4/3	554	554	-	-	-	3.3	1.0	-	4.3	28.0	5.9	1.0	6.9
5/1	20	20	-	-	-	0.2	0.0	-	0.2	35.9	0.4	0.0	0.4
5/2	22	22	-	-	-	0.2	0.0	-	0.2	35.5	0.4	0.0	0.4
6/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1133	1133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	211	211	-	-	-	0.9	0.4	-	1.3	22.3	3.1	0.4	3.5
8/2	200	200	-	-	-	0.6	0.4	-	1.0	17.5	0.9	0.4	1.3
8/3	281	281	-	-	-	0.8	0.7	-	1.5	19.6	1.2	0.7	1.9
9/1	1008	1008	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	6.5	0.0	0.0	0.0
10/2	688	688	-	-	-	0.2	0.8	-	1.0	5.2	0.6	0.8	1.3
10/3	650	650	-	-	-	0.2	0.7	-	0.8	4.6	0.4	0.7	1.0
11/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	952	952	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	712	712	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

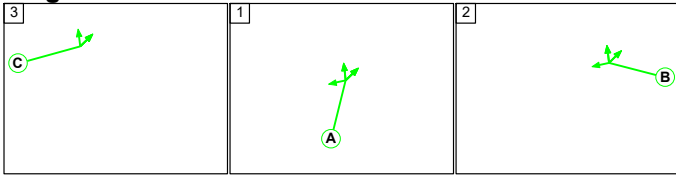
13/2	952	952	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	517	517	-	-	-	1.9	0.5	-	2.4	17.0	7.2	0.5	7.8
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		34.9	Total Delay for Signalled Lanes (pcuHr)		8.93	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		54.4	Total Delay for Signalled Lanes (pcuHr)		6.76	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-5.9	Total Delay for Signalled Lanes (pcuHr)		27.31	Cycle Time (s)		75			
		PRC Over All Lanes (%)		-5.9	Total Delay Over All Lanes(pcuHr)		43.40						

Full Input Data And Results

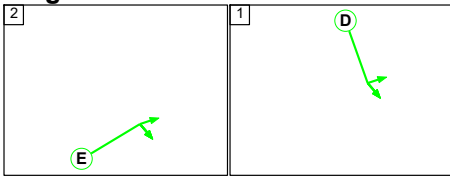
Scenario 6: '2023 Reference Case 6-7AM' (FG11: '23RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

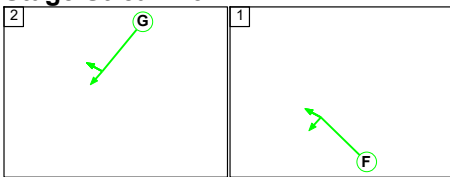
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

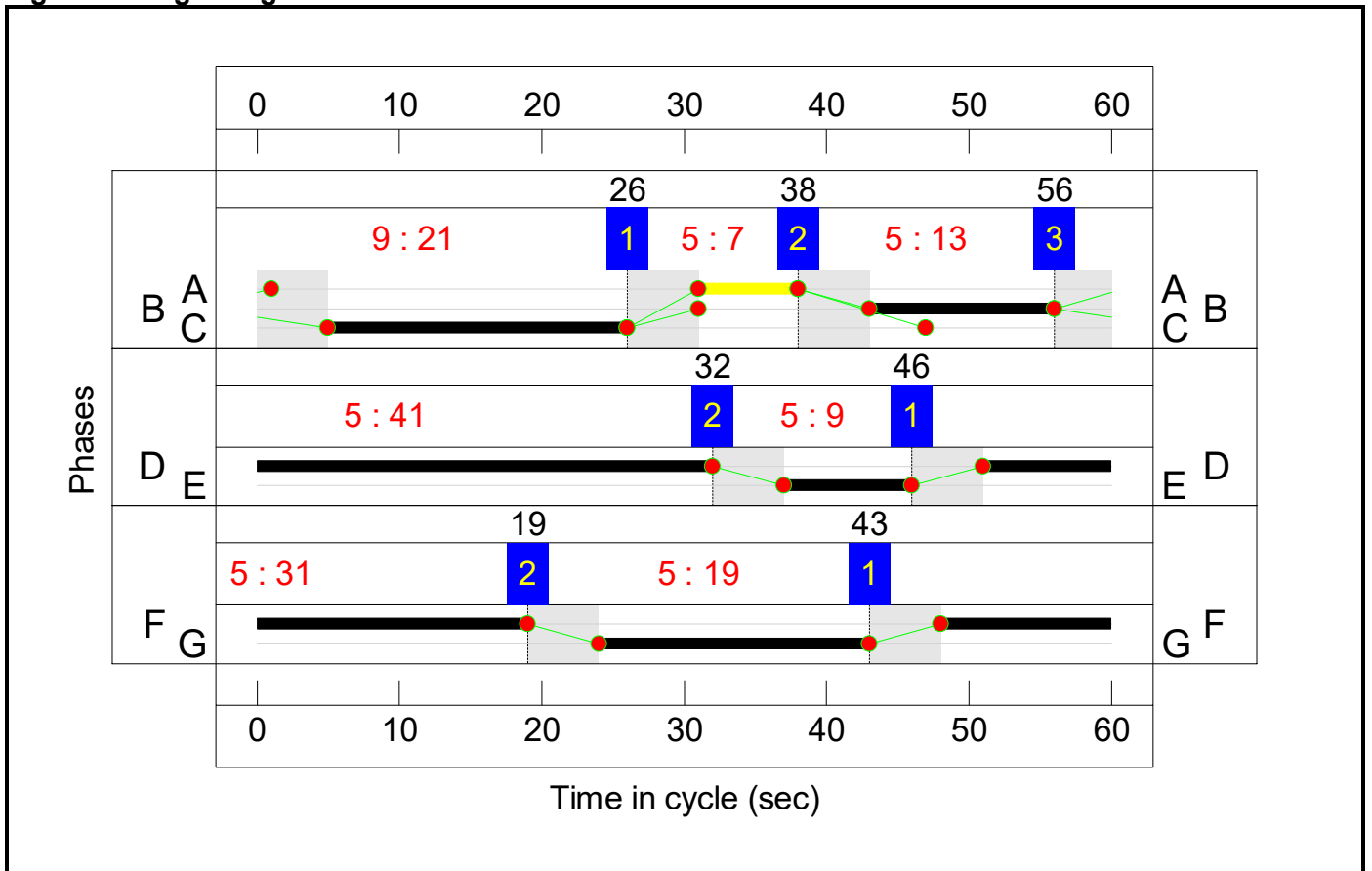
Stage Stream: 2

Stage	2	1
Duration	9	41
Change Point	32	46

Stage Stream: 3

Stage	2	1
Duration	19	31
Change Point	19	43

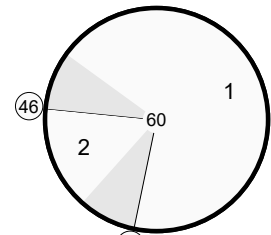
Signal Timings Diagram



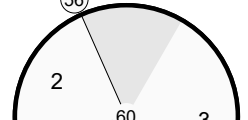
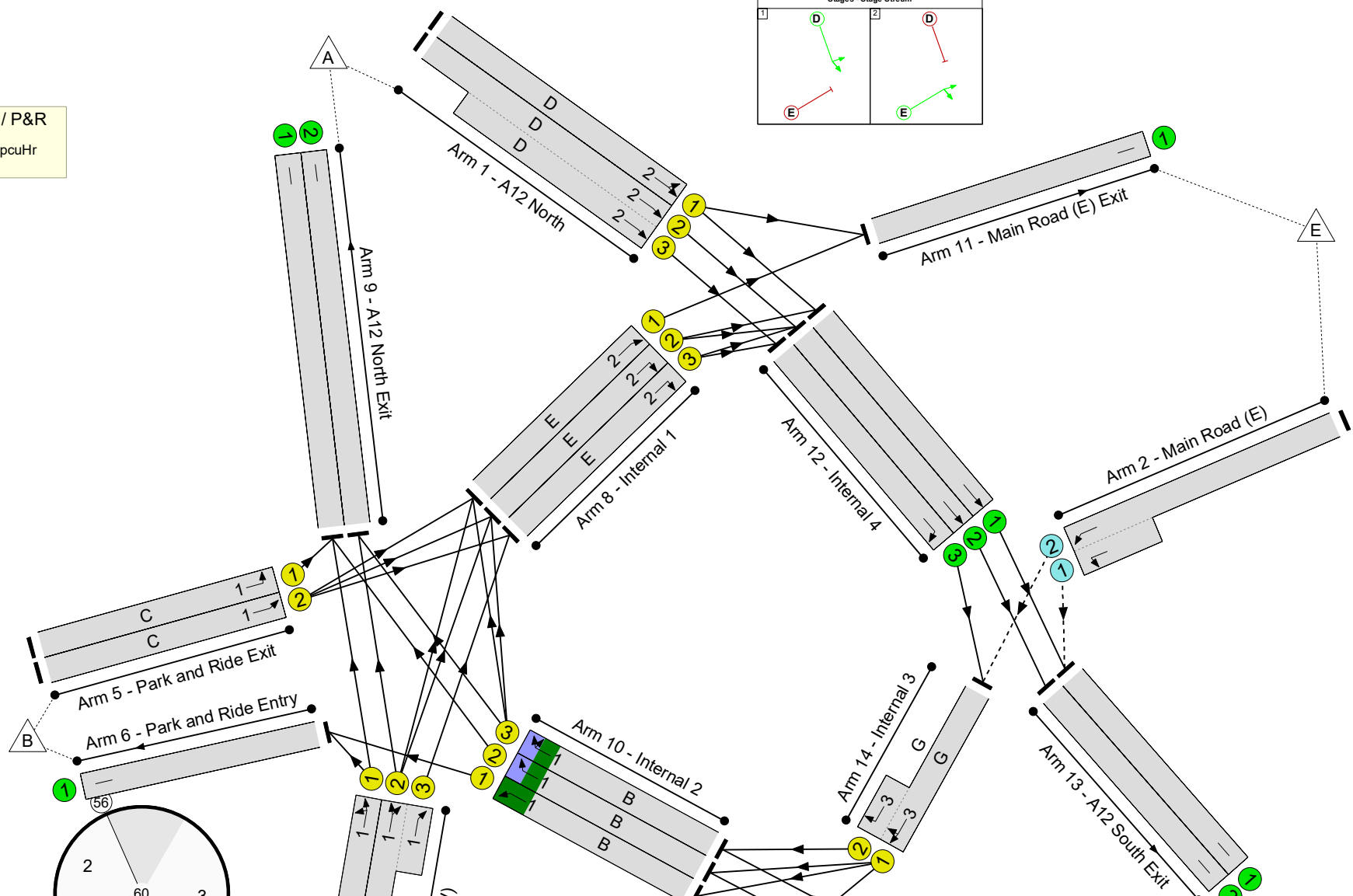
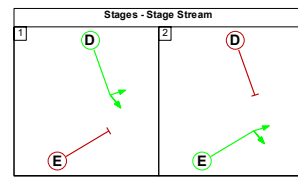
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 31.7 %  
 Total Traffic Delay: 9.9 pcuHr



C1 - PEED TS32SERIES 3 Stream 2





## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>68.4%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>68.4%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	295	1964	1375	21.5%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	557	2105:2115	1329+446	31.4 : 31.4%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	40	950:1845	71+641	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	431	2070:1910	1059+520	27.3 : 27.3%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	228	2084	1111	20.5%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	129	2034	271	47.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	320	2175:2175	281+187	68.4 : 68.4%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	1	1995	732	0.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	8	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	41	1993	332	12.3%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	99	2137	356	27.8%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	128	2127	354	36.1%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	283	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	7	1932	966	0.7%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	292	2066	1033	28.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	229	2066	1033	22.2%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	140	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	144	1800:1800	600+4	23.8 : 23.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	80	0	0	6.7	3.3	0.0	9.9	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	80	0	0	6.7	3.3	0.0	9.9	-	-	-	-
1/1	295	295	-	-	-	0.3	0.1	-	0.4	4.9	1.7	0.1	1.9
1/2+1/3	557	557	-	-	-	0.5	0.2	-	0.7	4.7	2.5	0.2	2.8
2/2+2/1	40	40	80	0	0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
3/2+3/1	431	431	-	-	-	0.9	0.2	-	1.1	9.0	2.6	0.2	2.8
3/3	228	228	-	-	-	0.5	0.1	-	0.6	9.4	2.0	0.1	2.1
4/1	129	129	-	-	-	0.9	0.5	-	1.3	36.7	2.0	0.5	2.4
4/2+4/3	320	320	-	-	-	2.2	1.1	-	3.2	36.4	3.0	1.1	4.1
5/1	1	1	-	-	-	0.0	0.0	-	0.0	14.8	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	8	8	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	41	41	-	-	-	0.1	0.1	-	0.2	15.8	0.2	0.1	0.3
8/2	99	99	-	-	-	0.1	0.2	-	0.3	9.1	0.2	0.2	0.4
8/3	128	128	-	-	-	0.0	0.3	-	0.3	8.9	0.6	0.3	0.9
9/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	7	7	-	-	-	0.0	0.0	-	0.0	7.6	0.0	0.0	0.0
10/2	292	292	-	-	-	0.4	0.2	-	0.6	7.6	1.0	0.2	1.2
10/3	229	229	-	-	-	0.3	0.1	-	0.5	7.3	0.8	0.1	0.9
11/1	50	50	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	140	140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

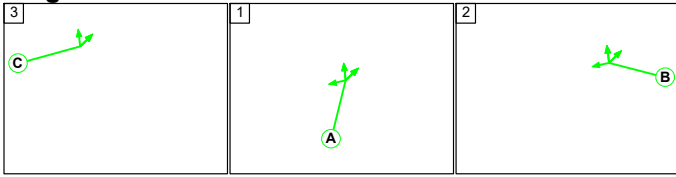
13/2	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	144	144	-	-	-	0.5	0.2	-	0.7	17.6	1.8	0.2	2.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		31.7		Total Delay for Signalled Lanes (pcuHr)		5.66		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		149.3		Total Delay for Signalled Lanes (pcuHr)		1.88		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		229.8		Total Delay for Signalled Lanes (pcuHr)		2.38		Cycle Time (s)		60	
		PRC Over All Lanes (%)		31.7		Total Delay Over All Lanes(pcuHr)		9.94					

Full Input Data And Results

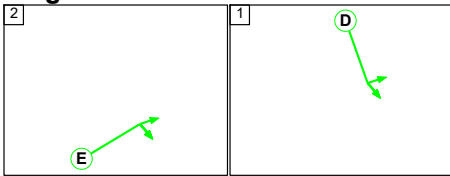
Scenario 7: '2023 Reference Case 7-8AM' (FG12: '23RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

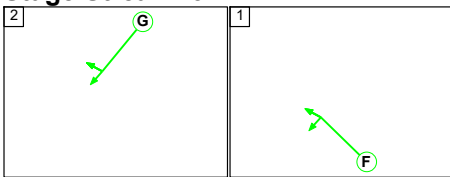
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

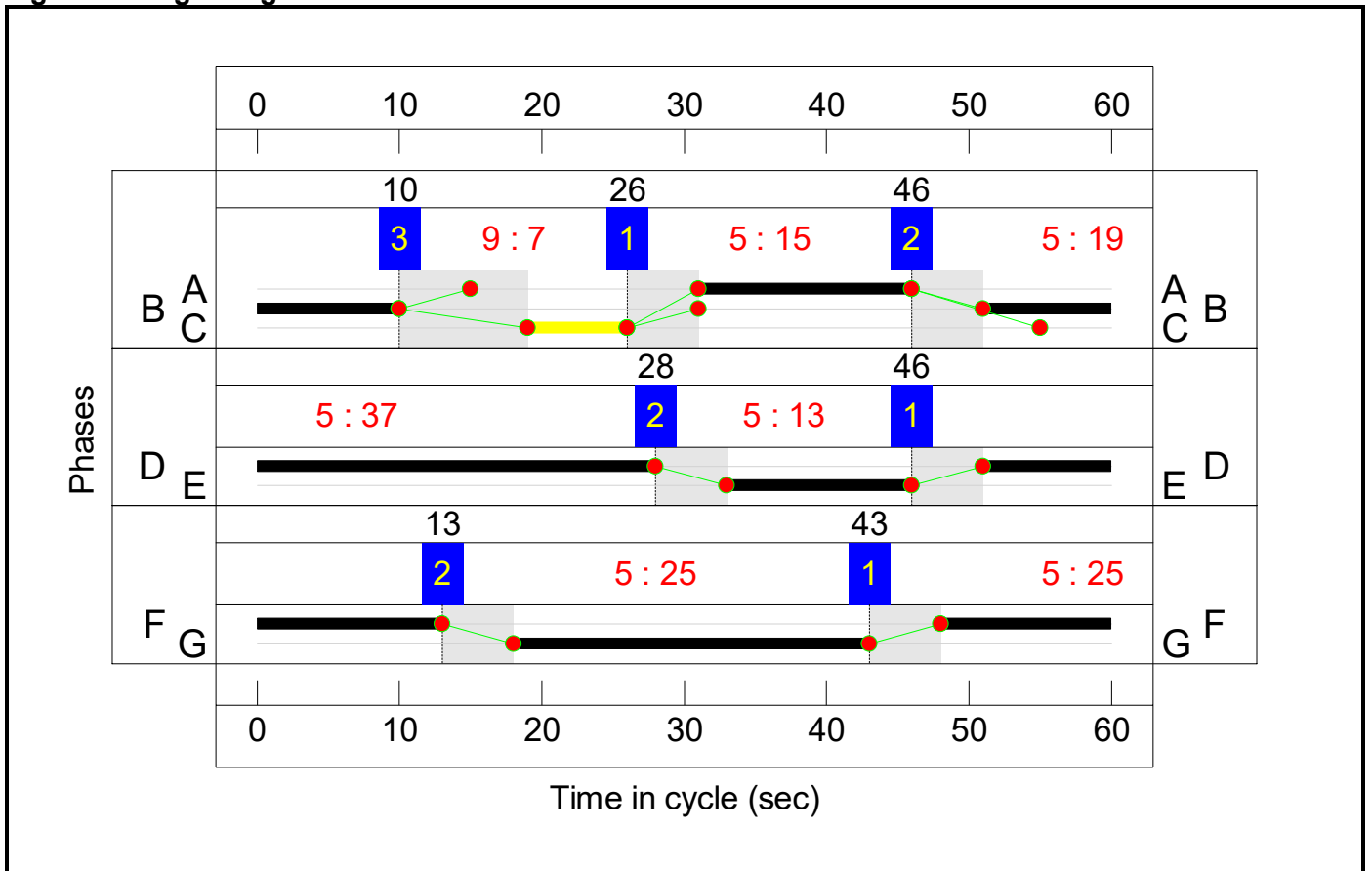
Stage Stream: 2

Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43

**Signal Timings Diagram**

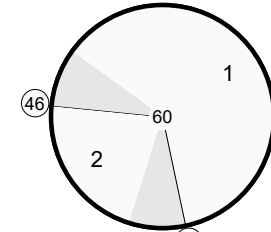


Full Input Data And Results  
**Network Layout Diagram**

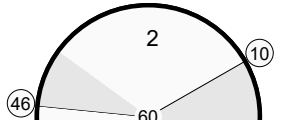
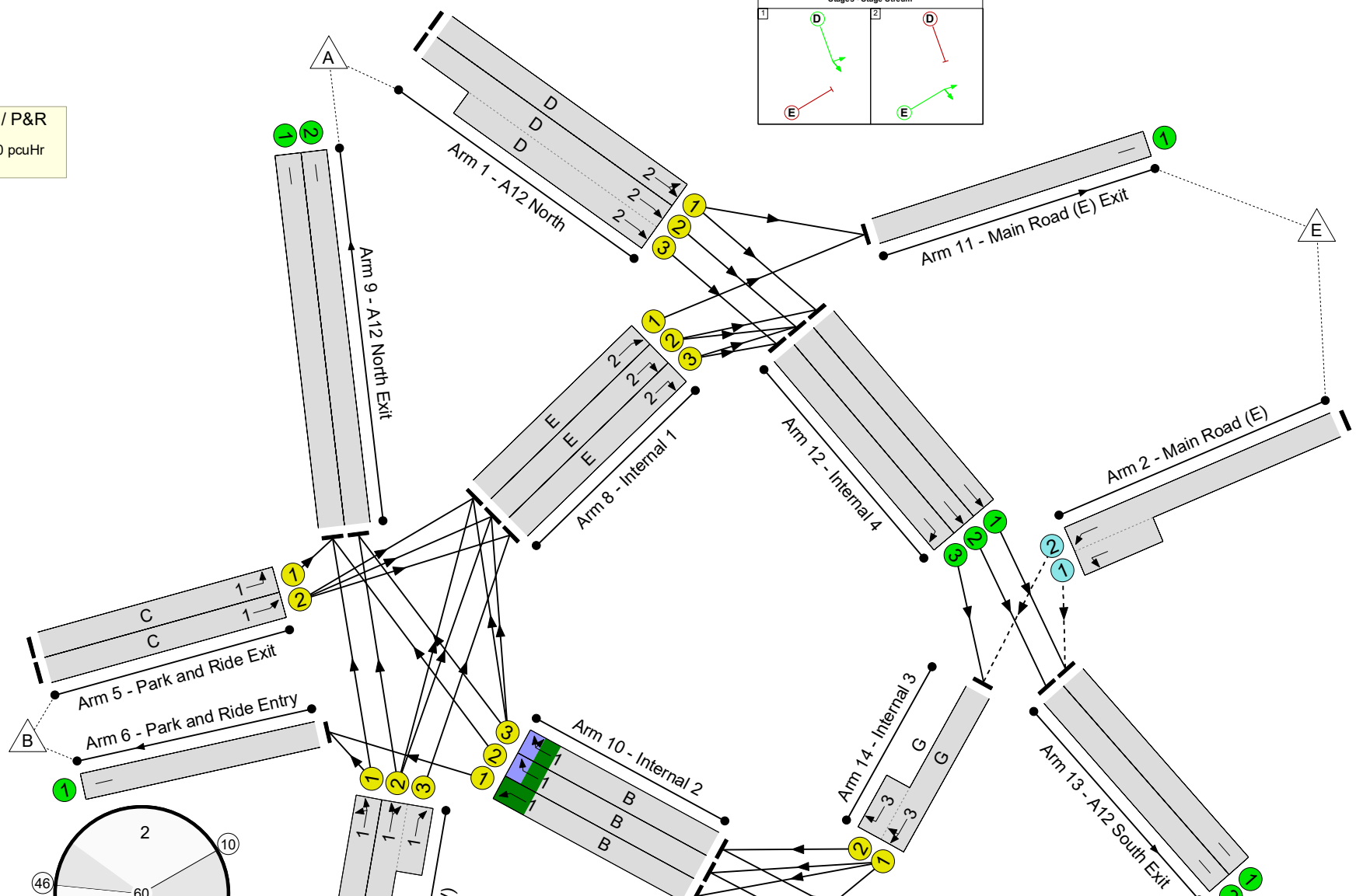
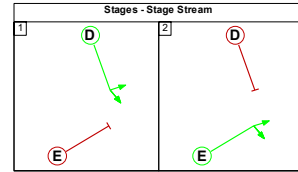


Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 3.8 %  
 Total Traffic Delay: 28.0 pcuHr



C1 - PEED TSC SE28ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>86.7%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>86.7%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	504	1963	1243	40.5%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	971	2105:2115	1182+640	53.3 : 53.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	94	950:1845	85+579	14.2 : 14.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	974	2070:1908	897+488	70.3 : 70.3%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	566	2084	903	62.7%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	432	2032	542	79.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	676	2175:2175	444+335	86.7 : 86.7%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	641	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	103	1993	465	22.1%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	269	2137	499	53.9%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	292	2127	496	58.8%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1053	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	593	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	43	1932	1095	3.9%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	631	2066	1171	53.9%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	578	2066	1171	49.4%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	124	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1057	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1057	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	353	1800:1800	772+27	44.2 : 44.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>188</b>	<b>0</b>	<b>0</b>	<b>17.1</b>	<b>10.9</b>	<b>0.0</b>	<b>28.0</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>188</b>	<b>0</b>	<b>0</b>	<b>17.1</b>	<b>10.9</b>	<b>0.0</b>	<b>28.0</b>	-	-	-	-
1/1	504	504	-	-	-	0.8	0.3	-	1.1	7.9	4.1	0.3	4.4
1/2+1/3	971	971	-	-	-	1.5	0.6	-	2.0	7.5	5.4	0.6	6.0
2/2+2/1	94	94	188	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2+3/1	974	974	-	-	-	3.5	1.2	-	4.7	17.5	8.4	1.2	9.6
3/3	566	566	-	-	-	2.1	0.8	-	2.9	18.5	7.2	0.8	8.1
4/1	432	432	-	-	-	2.5	1.9	-	4.4	36.3	6.6	1.9	8.5
4/2+4/3	676	676	-	-	-	3.7	3.1	-	6.8	36.0	7.4	3.1	10.5
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	641	641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	103	103	-	-	-	0.4	0.1	-	0.5	17.6	0.7	0.1	0.8
8/2	269	269	-	-	-	0.7	0.6	-	1.3	17.6	1.0	0.6	1.6
8/3	292	292	-	-	-	0.8	0.7	-	1.5	18.1	1.0	0.7	1.8
9/1	1053	1053	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	593	593	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	43	43	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	631	631	-	-	-	0.0	0.6	-	0.6	3.3	0.0	0.6	0.6
10/3	578	578	-	-	-	0.0	0.5	-	0.5	3.3	0.1	0.5	0.6
11/1	124	124	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

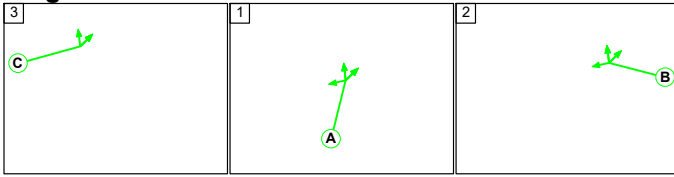
13/2	1057	1057	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	353	353	-	-	-	1.2	0.4	-	1.6	16.1	4.7	0.4	5.1
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		3.8		Total Delay for Signalled Lanes (pcuHr)		12.31		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		53.0		Total Delay for Signalled Lanes (pcuHr)		6.42		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		27.9		Total Delay for Signalled Lanes (pcuHr)		9.22		Cycle Time (s)		60	
		PRC Over All Lanes (%)		3.8		Total Delay Over All Lanes(pcuHr)		28.04					

Full Input Data And Results

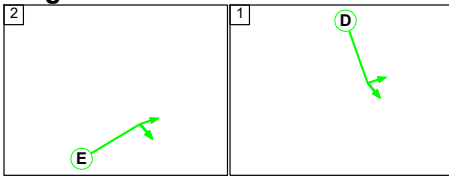
Scenario 8: '2023 Reference Case 8-9AM' (FG13: '23RC\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

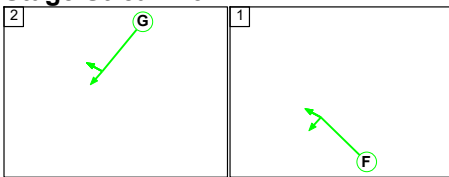
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

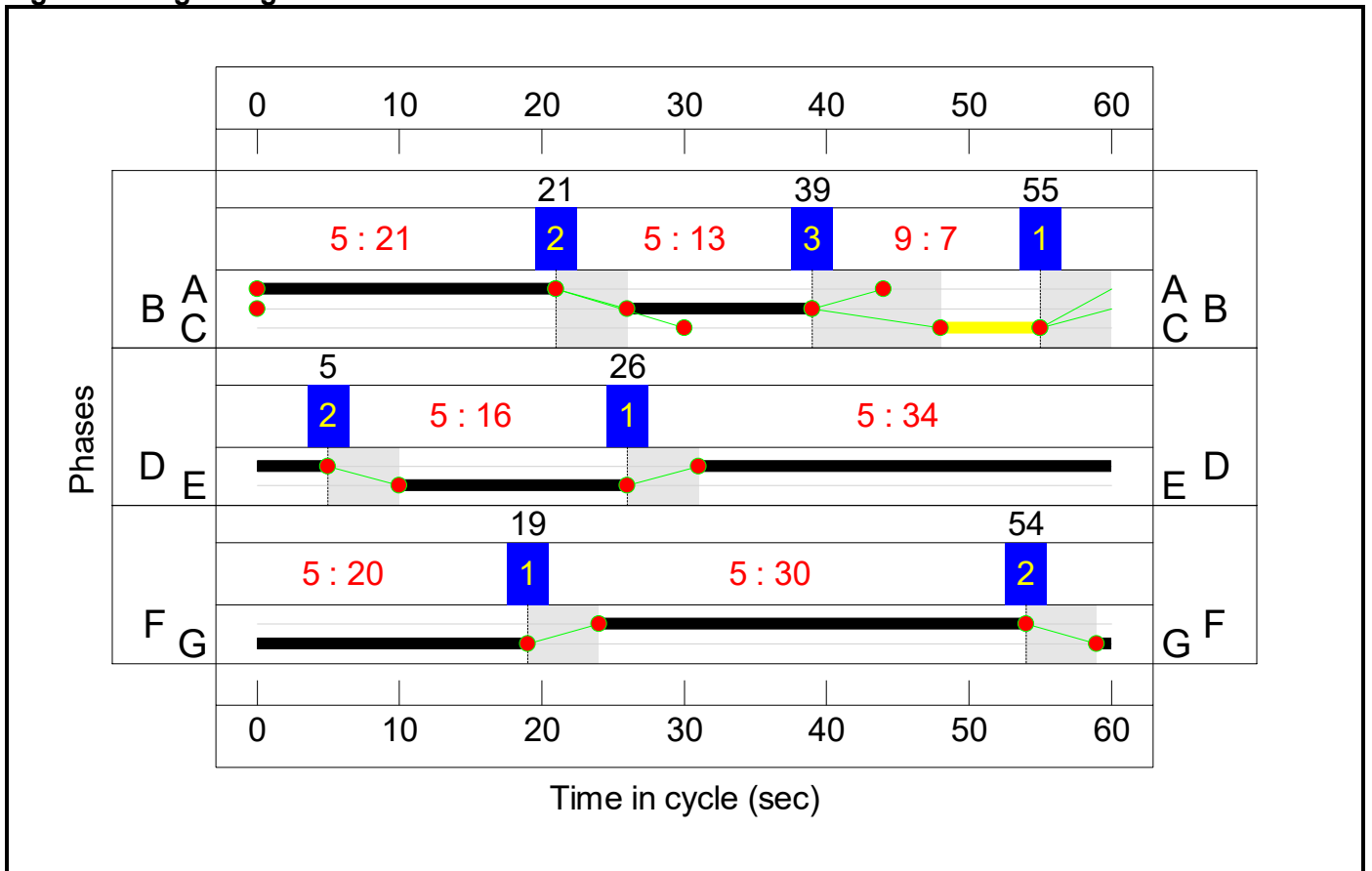
Stage Stream: 2

Stage	2	1
Duration	16	34
Change Point	5	26

Stage Stream: 3

Stage	2	1
Duration	20	30
Change Point	54	19

Signal Timings Diagram

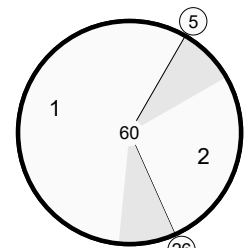




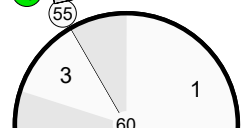
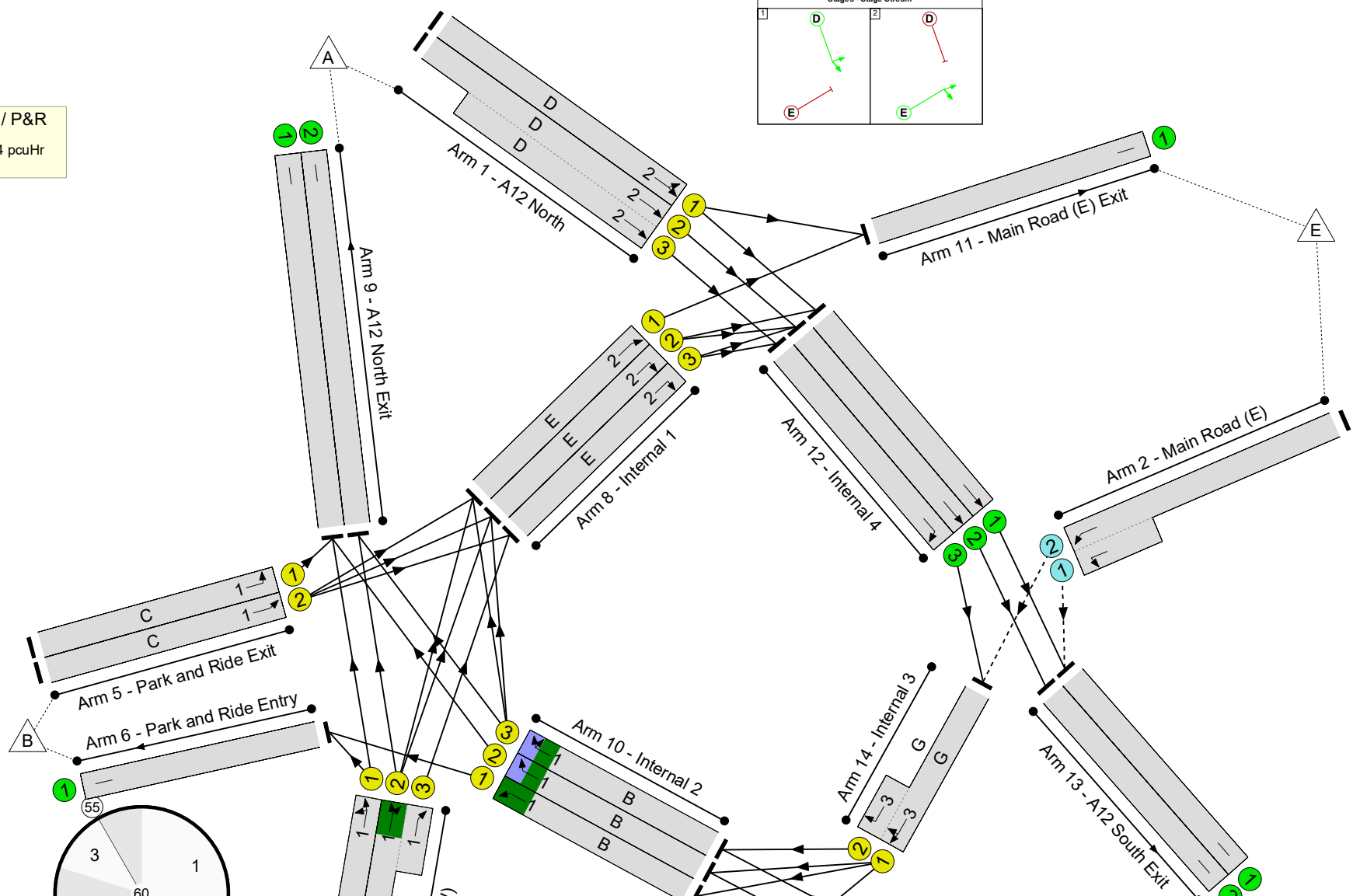
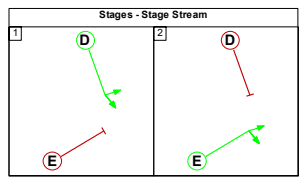
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 0.0 %  
 Total Traffic Delay: 34.4 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>90.0%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>90.0%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	34	-	606	1964	1146	52.9%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	34	-	1129	2105:2115	1111+629	64.9 : 64.9%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	163	950:1845	128+545	24.2 : 24.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	30	-	1207	2070:1908	1031+644	72.1 : 72.1%
3/3	A12 South Ahead	U	3	N/A	F		1	30	-	726	2084	1077	67.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	401	2034	746	53.8%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	846	2175:2175	516+425	90.0 : 90.0%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	5	1995	266	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	58	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	16	-	159	1993	565	28.2%
8/2	Internal 1 Right	U	2	N/A	E		1	16	-	369	2137	605	60.9%
8/3	Internal 1 Right	U	2	N/A	E		1	16	-	383	2127	603	63.6%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1158	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	52	1932	902	5.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	758	2066	964	78.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	736	2066	964	76.3%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	179	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	771	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1287	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	903	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1287	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	20	-	440	1800:1800	630+15	68.3 : 68.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>326</b>	<b>0</b>	<b>0</b>	<b>19.4</b>	<b>15.0</b>	<b>0.0</b>	<b>34.4</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>326</b>	<b>0</b>	<b>0</b>	<b>19.4</b>	<b>15.0</b>	<b>0.0</b>	<b>34.4</b>	-	-	-	-
1/1	606	606	-	-	-	1.3	0.6	-	1.8	10.9	6.1	0.6	6.6
1/2+1/3	1129	1129	-	-	-	2.3	0.9	-	3.2	10.3	7.6	0.9	8.5
2/2+2/1	163	163	326	0	0	0.0	0.2	-	0.2	3.9	0.1	0.2	0.3
3/2+3/1	1207	1207	-	-	-	3.5	1.3	-	4.7	14.1	9.3	1.3	10.6
3/3	726	726	-	-	-	2.2	1.0	-	3.2	15.9	8.9	1.0	9.9
4/1	401	401	-	-	-	1.7	0.6	-	2.2	20.2	5.2	0.6	5.8
4/2+4/3	846	846	-	-	-	3.9	4.1	-	8.1	34.3	9.7	4.1	13.8
5/1	5	5	-	-	-	0.0	0.0	-	0.0	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	58	58	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	159	159	-	-	-	0.4	0.2	-	0.6	14.2	1.7	0.2	1.9
8/2	369	369	-	-	-	0.3	0.8	-	1.1	10.6	4.4	0.8	5.2
8/3	383	383	-	-	-	0.4	0.9	-	1.2	11.6	4.4	0.9	5.3
9/1	1158	1158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	52	52	-	-	-	0.1	0.0	-	0.1	5.9	0.1	0.0	0.2
10/2	758	758	-	-	-	0.7	1.8	-	2.5	12.0	1.8	1.8	3.6
10/3	736	736	-	-	-	0.7	1.6	-	2.3	11.1	1.5	1.6	3.0
11/1	179	179	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1287	1287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	903	903	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

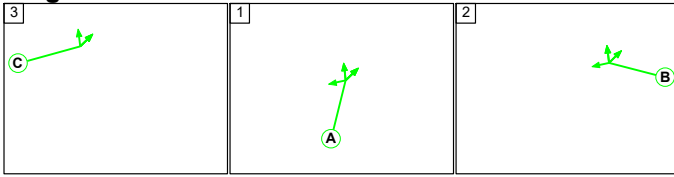
13/2	1287	1287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	440	440	-	-	-	1.9	1.1	-	2.9	24.0	6.9	1.1	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		0.0		Total Delay for Signalled Lanes (pcuHr)		15.35		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		38.7		Total Delay for Signalled Lanes (pcuHr)		8.03		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		24.9		Total Delay for Signalled Lanes (pcuHr)		10.86		Cycle Time (s)		60	
		PRC Over All Lanes (%)		0.0		Total Delay Over All Lanes(pcuHr)		34.42					

Full Input Data And Results

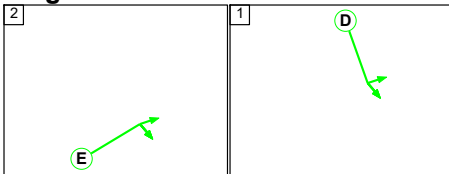
Scenario 9: '2023 Reference Case 3-4PM' (FG14: '23RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

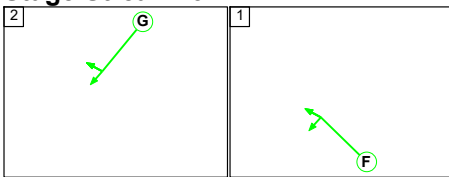
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

Stage Stream: 2

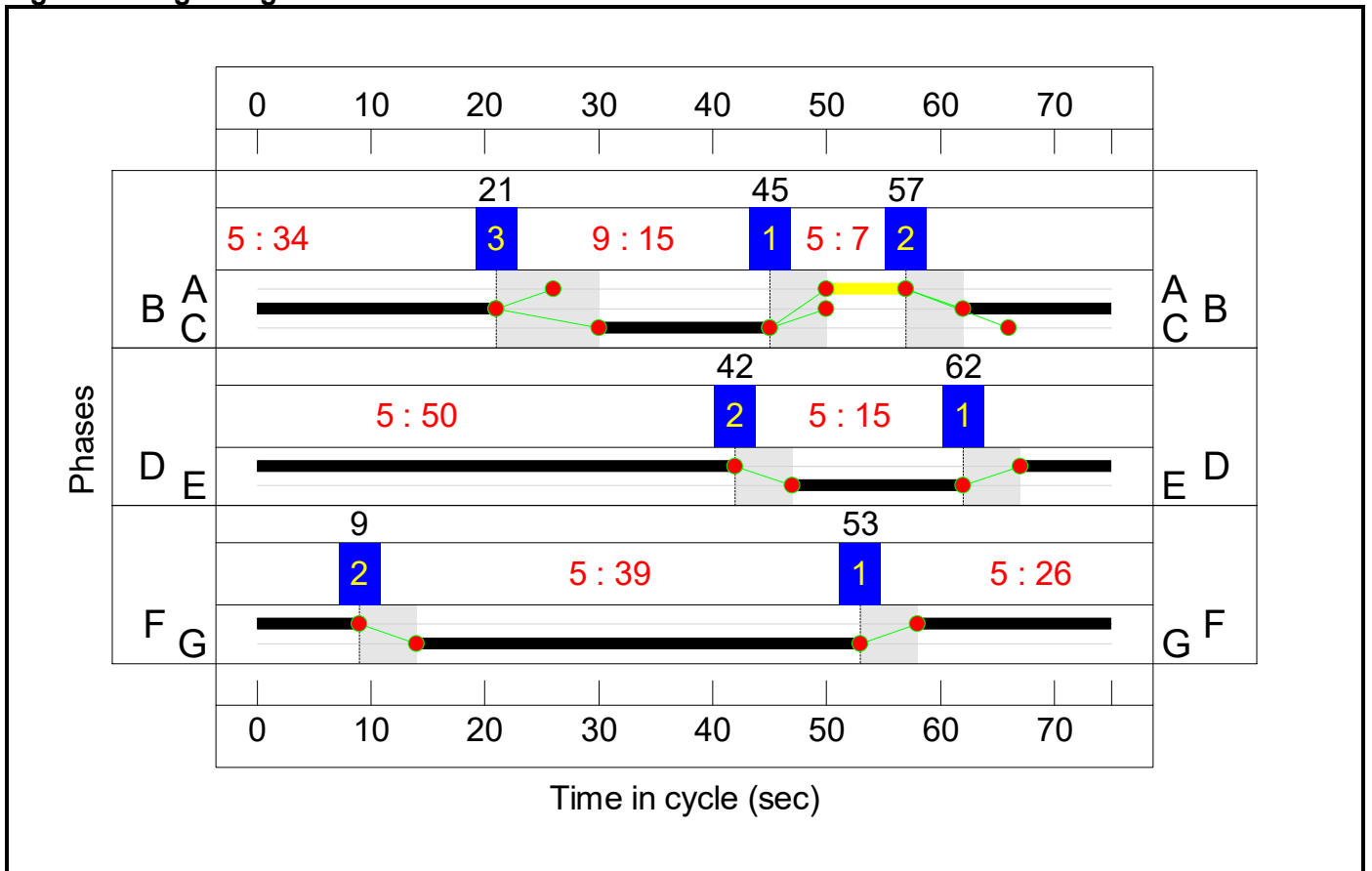
Stage	2	1
Duration	15	50
Change Point	42	62

Stage Stream: 3

Stage	2	1
Duration	39	26
Change Point	9	53



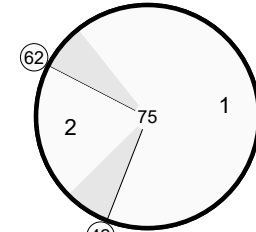
Signal Timings Diagram



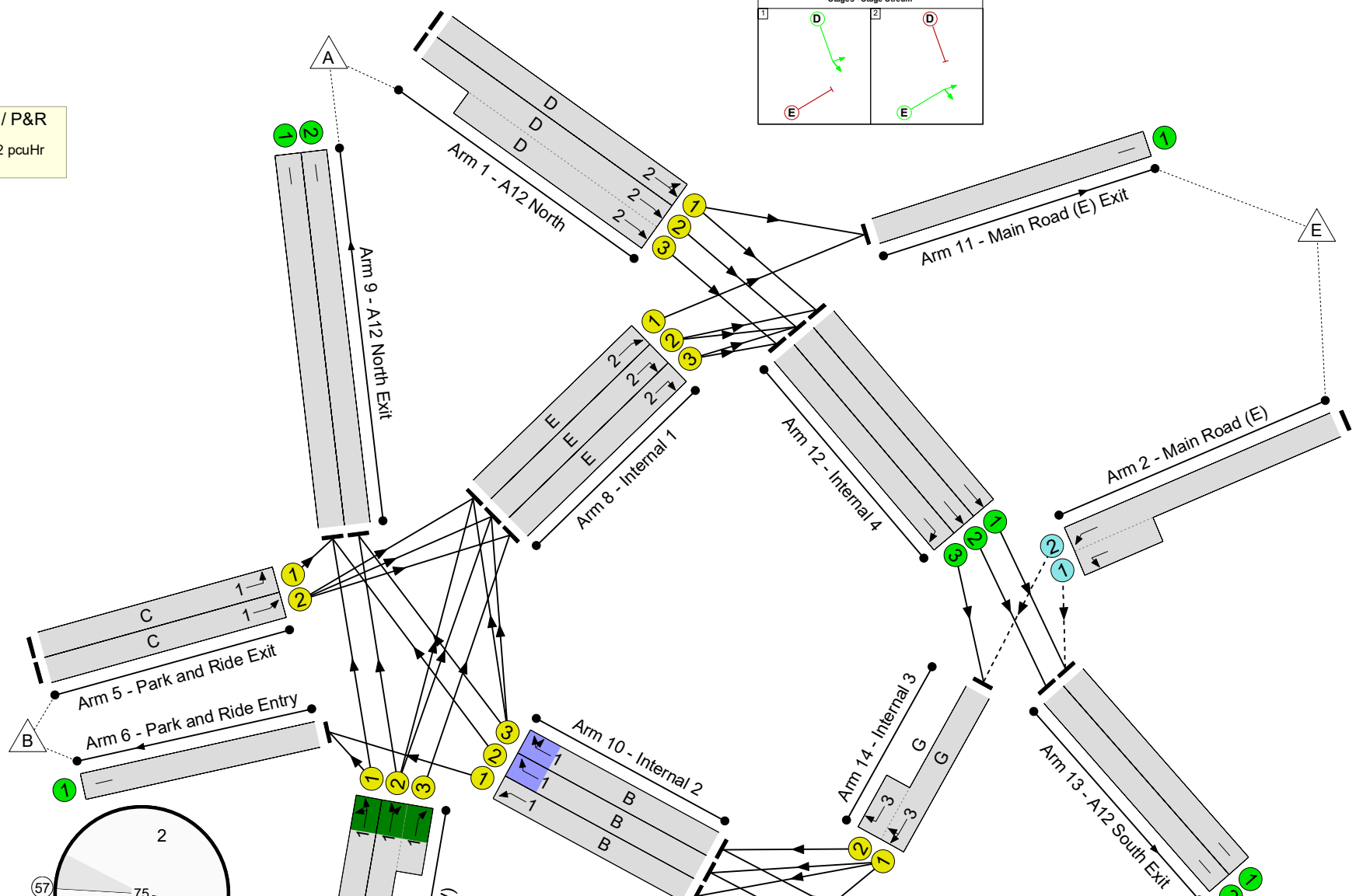
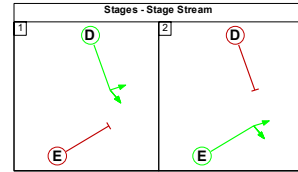
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -5.1 %  
 Total Traffic Delay: 45.2 pcuHr



C1 - PEED TMC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.6%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	94.6%
1/1	A12 North Left Ahead	U	2	N/A	D		1	50	-	538	1964	1336	40.3%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	50	-	1021	2105:2115	1158+731	54.0 : 54.0%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	258	950:1845	305+315	41.6 : 41.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	26	-	1331	2070:1910	745+665	94.6 : 94.2%
3/3	A12 South Ahead	U	3	N/A	F		1	26	-	671	2084	750	89.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	384	2035	597	64.3%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	631	2175:2175	433+395	76.3 : 76.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	5	1995	426	1.2%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	11	2125	453	2.4%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1135	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	15	-	176	1993	425	41.4%
8/2	Internal 1 Right	U	2	N/A	E		1	15	-	266	2137	456	58.3%
8/3	Internal 1 Right	U	2	N/A	E		1	15	-	309	2127	454	68.1%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1102	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	2	1932	902	0.2%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	713	2066	964	74.0%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	675	2066	964	70.0%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	185	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1067	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	793	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1067	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	39	-	523	1800:1800	960+7	54.1 : 54.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>516</b>	<b>0</b>	<b>0</b>	<b>25.1</b>	<b>20.0</b>	<b>0.0</b>	<b>45.2</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>516</b>	<b>0</b>	<b>0</b>	<b>25.1</b>	<b>20.0</b>	<b>0.0</b>	<b>45.2</b>	-	-	-	-
1/1	538	538	-	-	-	0.8	0.3	-	1.1	7.5	4.9	0.3	5.3
1/2+1/3	1021	1021	-	-	-	1.5	0.6	-	2.1	7.3	5.9	0.6	6.5
2/2+2/1	258	258	516	0	0	0.1	0.4	-	0.4	5.9	0.6	0.4	0.9
3/2+3/1	1331	1331	-	-	-	8.5	7.2	-	15.7	42.4	14.1	7.2	21.3
3/3	671	671	-	-	-	4.2	3.9	-	8.1	43.4	13.0	3.9	16.9
4/1	384	384	-	-	-	2.5	0.9	-	3.4	31.5	6.9	0.9	7.8
4/2+4/3	631	631	-	-	-	3.9	1.6	-	5.5	31.3	7.8	1.6	9.4
5/1	5	5	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	11	11	-	-	-	0.1	0.0	-	0.1	27.7	0.2	0.0	0.2
6/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1135	1135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	176	176	-	-	-	1.4	0.4	-	1.8	36.7	3.4	0.4	3.8
8/2	266	266	-	-	-	0.3	0.7	-	1.0	13.8	4.8	0.7	5.5
8/3	309	309	-	-	-	0.5	1.1	-	1.5	17.6	5.7	1.1	6.8
9/1	1102	1102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	713	713	-	-	-	0.0	1.4	-	1.5	7.3	0.1	1.4	1.5
10/3	675	675	-	-	-	0.0	1.2	-	1.2	6.3	0.1	1.2	1.2
11/1	185	185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

13/2	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	523	523	-	-	-	1.3	0.6	-	1.9	12.9	7.4	0.6	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		18.0	Total Delay for Signalled Lanes (pcuHr)		11.60	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		32.2	Total Delay for Signalled Lanes (pcuHr)		7.51	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-5.1	Total Delay for Signalled Lanes (pcuHr)		25.64	Cycle Time (s)		75			
		PRC Over All Lanes (%)		-5.1	Total Delay Over All Lanes(pcuHr)		45.18						

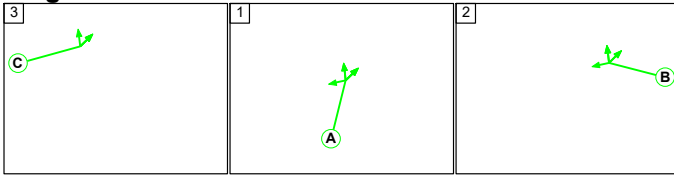


Full Input Data And Results

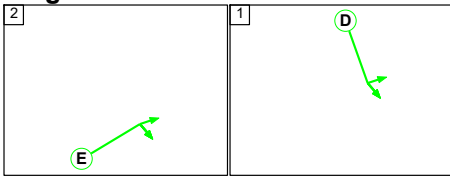
Scenario 10: '2023 Reference Case 5-6PM' (FG15: '23RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

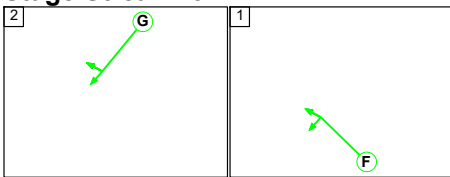
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

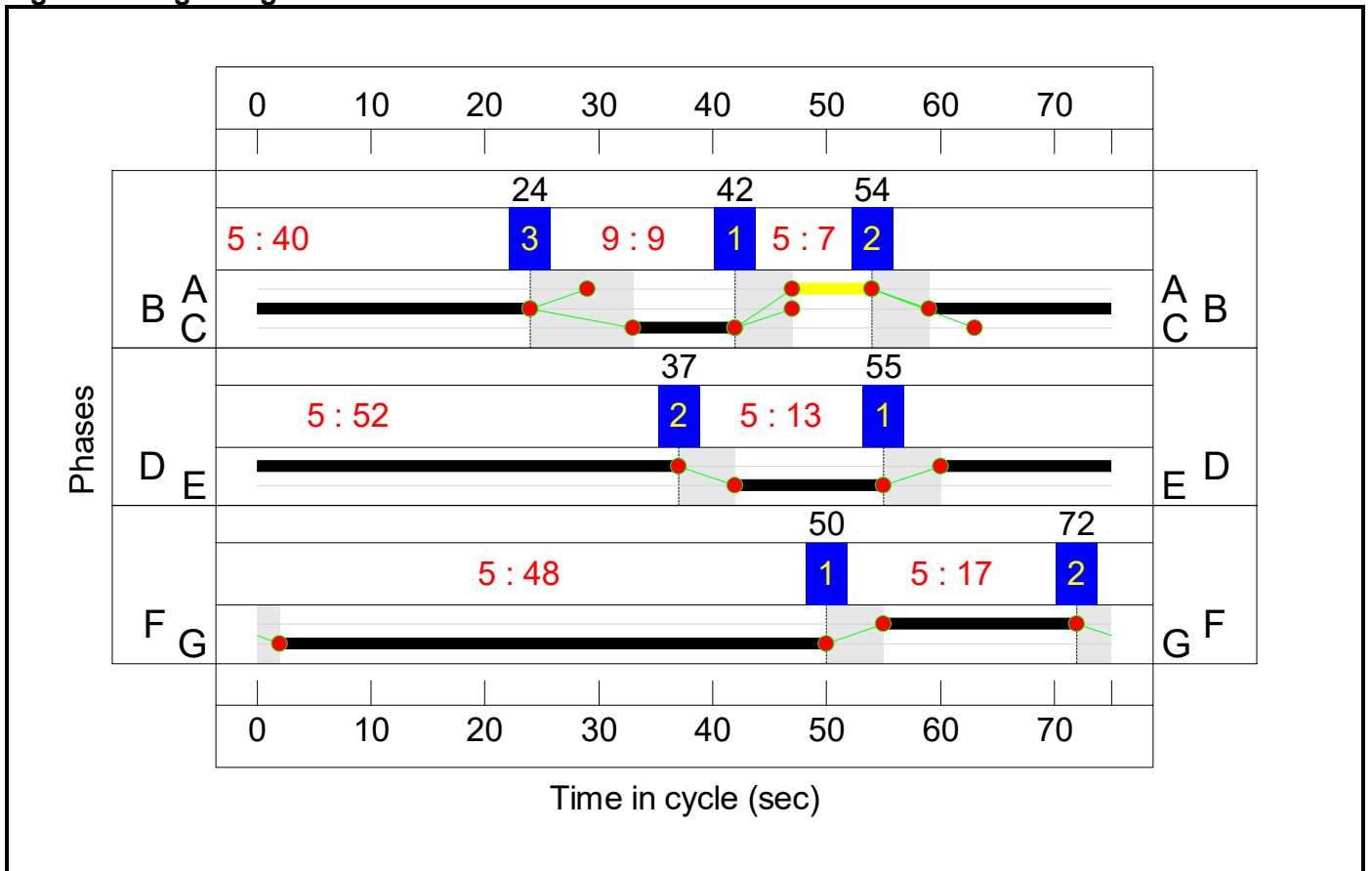
Stage Stream: 2

Stage	2	1
Duration	13	52
Change Point	37	55

Stage Stream: 3

Stage	2	1
Duration	48	17
Change Point	72	50

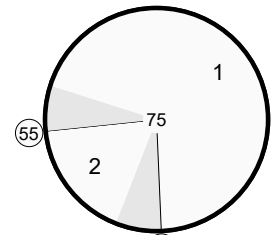
**Signal Timings Diagram**



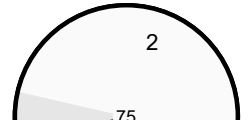
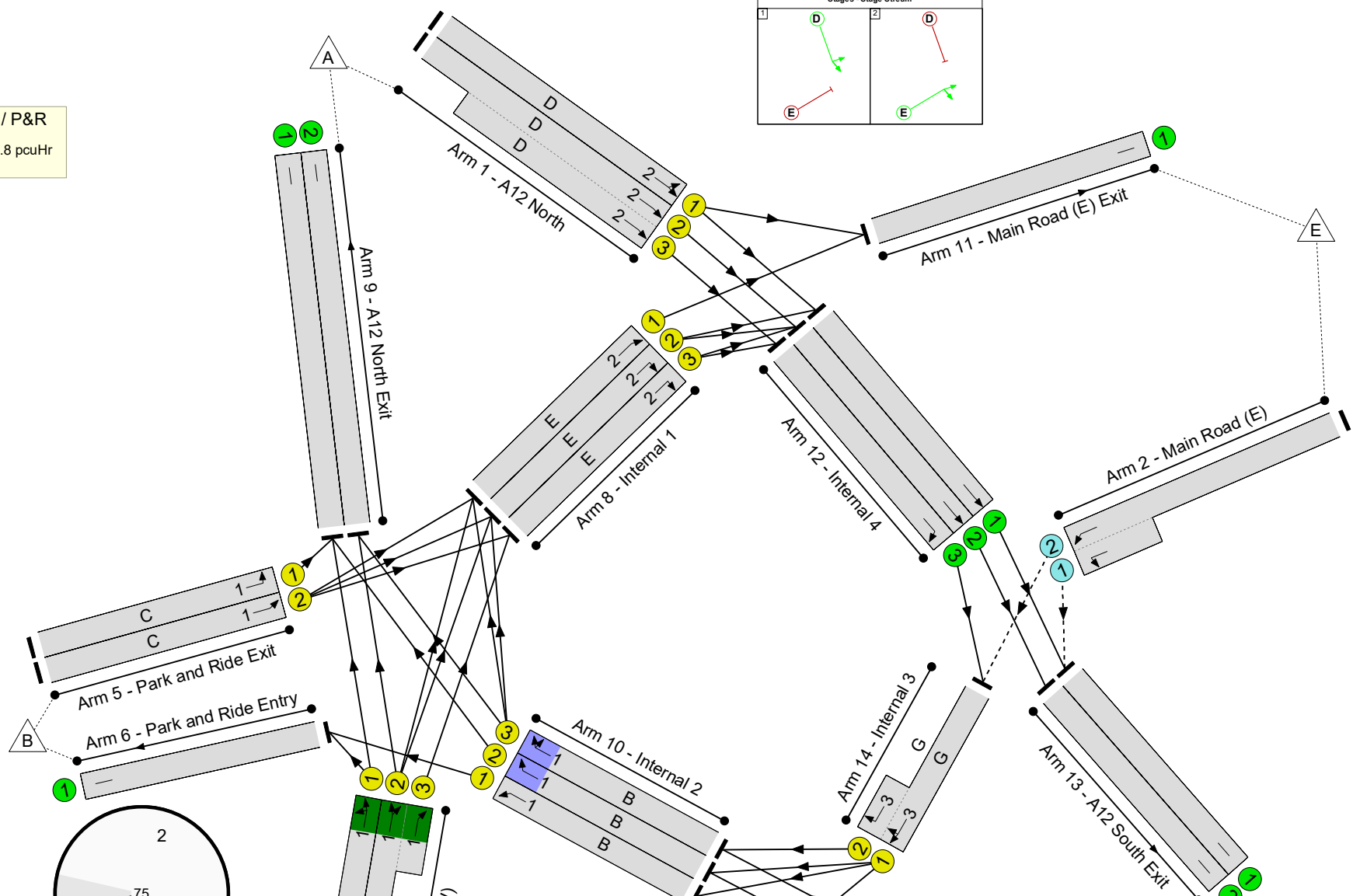
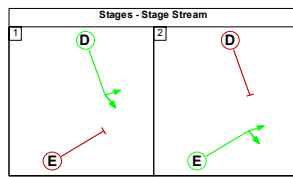
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -57.0 %  
 Total Traffic Delay: 311.8 pcuHr



C1 - PEED TSC 37 RIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	141.3%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	141.3%
1/1	A12 North Left Ahead	U	2	N/A	D		1	52	-	518	1964	1388	37.3%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	52	-	1004	2105:2115	1186+779	51.1 : 51.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	380	950:1845	326+215	70.3 : 70.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	17	-	1293	2070:1910	497+458	141.3 : 128.9%
3/3	A12 South Ahead	U	3	N/A	F		1	17	-	676	2084	500	135.2%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	296	2034	597	49.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	545	2175:2175	432+395	65.9 : 65.9%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	21	1995	266	7.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	23	2125	283	8.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1203	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	230	1993	372	51.9%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	176	2137	399	44.0%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	272	2127	397	68.5%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	706	2066	1129	44.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	679	2066	1129	44.6%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	398	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	749	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	48	-	627	1800:1800	1176+6	53.1 : 53.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>760</b>	<b>0</b>	<b>0</b>	<b>44.3</b>	<b>267.5</b>	<b>0.0</b>	<b>311.8</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>760</b>	<b>0</b>	<b>0</b>	<b>44.3</b>	<b>267.5</b>	<b>0.0</b>	<b>311.8</b>	-	-	-	-
1/1	518	518	-	-	-	0.6	0.3	-	0.9	6.5	4.2	0.3	4.5
1/2+1/3	1004	1004	-	-	-	1.2	0.5	-	1.7	6.2	5.0	0.5	5.6
2/2+2/1	380	380	760	0	0	0.2	1.2	-	1.3	12.5	1.7	1.2	2.8
3/2+3/1	1293	955	-	-	-	20.6	170.8	-	191.4	532.8	24.7	170.8	195.5
3/3	676	500	-	-	-	13.1	89.8	-	102.9	548.2	21.4	89.8	111.2
4/1	296	296	-	-	-	1.8	0.5	-	2.3	27.9	5.1	0.5	5.6
4/2+4/3	545	545	-	-	-	3.3	1.0	-	4.2	27.8	5.8	1.0	6.8
5/1	21	21	-	-	-	0.2	0.0	-	0.2	35.9	0.4	0.0	0.4
5/2	23	23	-	-	-	0.2	0.0	-	0.2	35.5	0.4	0.0	0.5
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1072	1072	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	193	193	-	-	-	1.5	0.5	-	2.0	37.2	3.7	0.5	4.3
8/2	175	175	-	-	-	0.3	0.4	-	0.7	14.2	2.6	0.4	3.0
8/3	272	272	-	-	-	0.5	1.1	-	1.6	21.4	5.1	1.1	6.2
9/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	7	7	-	-	-	0.0	0.0	-	0.0	4.2	0.0	0.0	0.0
10/2	501	501	-	-	-	0.0	0.4	-	0.4	2.9	0.0	0.4	0.4
10/3	503	503	-	-	-	0.0	0.4	-	0.4	2.9	0.0	0.4	0.4
11/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	398	398	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	749	749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

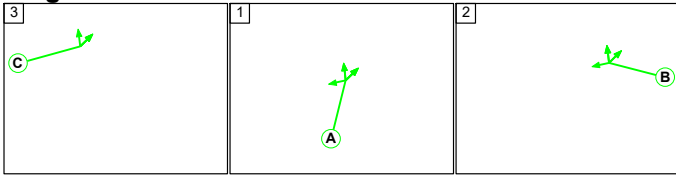


Full Input Data And Results

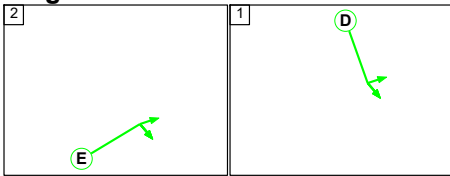
13/2	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	627	627	-	-	-	0.9	0.6	-	1.5	8.5	7.3	0.6	7.8
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		36.6		Total Delay for Signalled Lanes (pcuHr)		7.77		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		31.4		Total Delay for Signalled Lanes (pcuHr)		6.96		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-57.0		Total Delay for Signalled Lanes (pcuHr)		295.77		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-57.0		Total Delay Over All Lanes(pcuHr)		311.82					

**Stage Sequence Diagram**

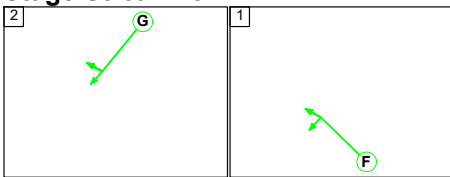
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

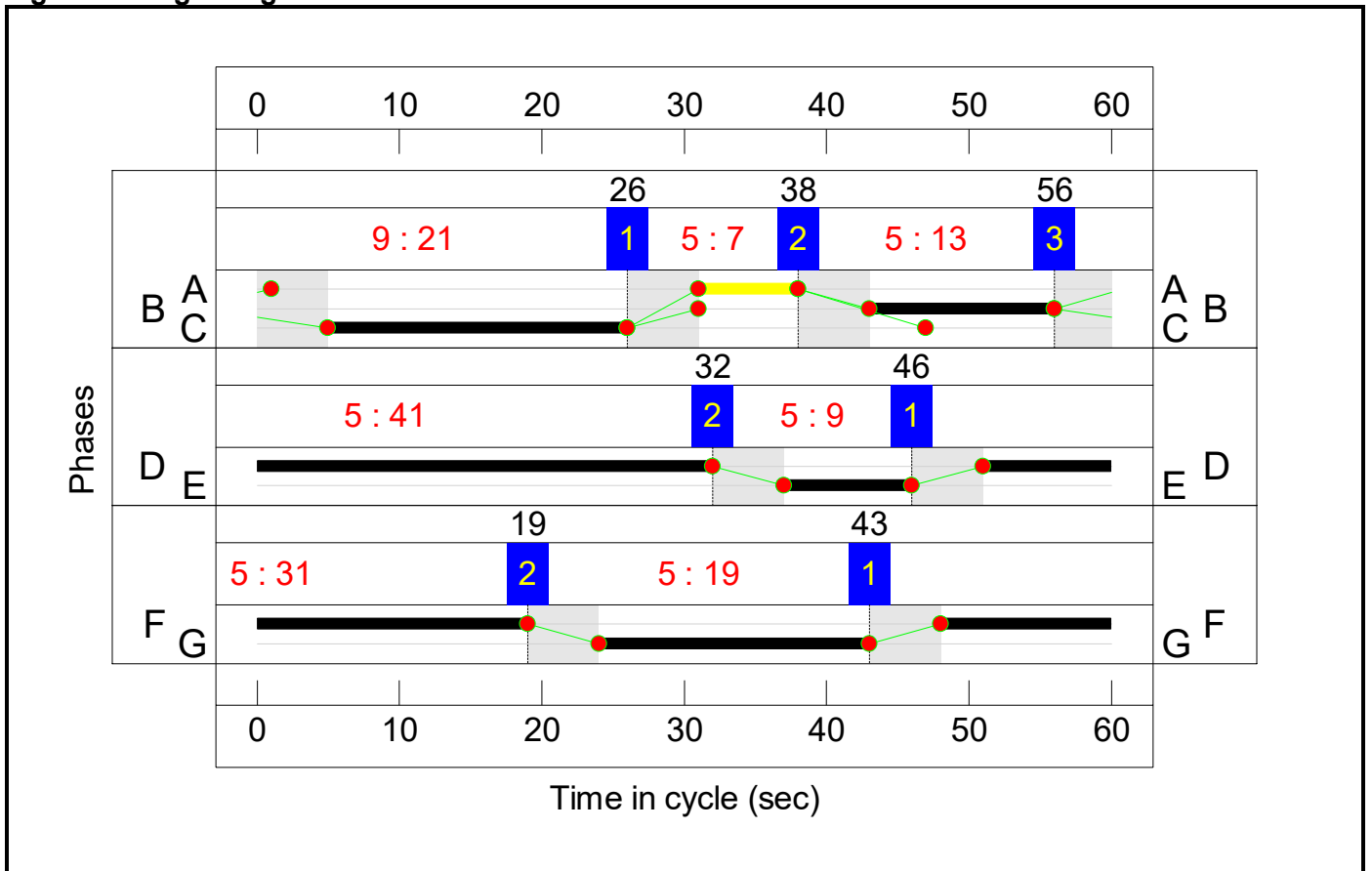
**Stage Stream: 2**

Stage	2	1
Duration	9	41
Change Point	32	46

**Stage Stream: 3**

Stage	2	1
Duration	19	31
Change Point	19	43

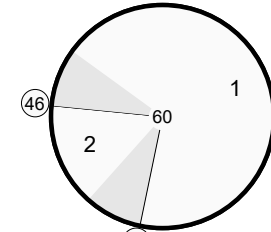
Signal Timings Diagram



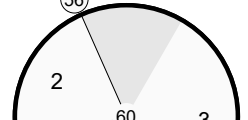
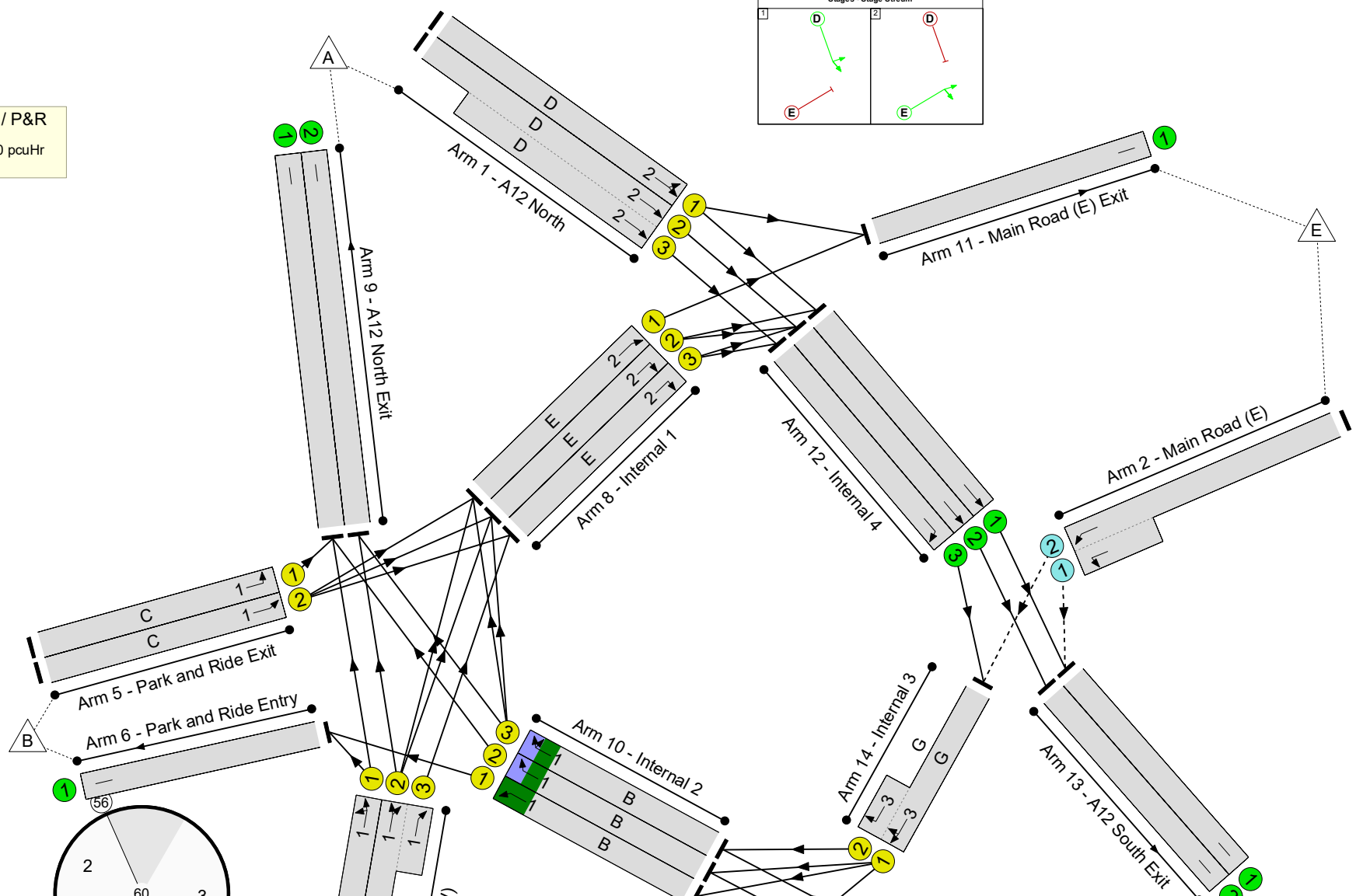
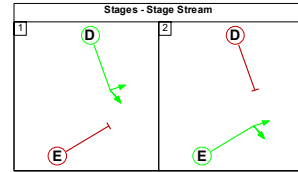
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 26.0 %  
 Total Traffic Delay: 11.0 pcuHr



C1 - PEED TS32SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>71.5%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>71.5%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	301	1964	1375	21.9%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	565	2105:2115	1329+446	31.8 : 31.8%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	40	950:1845	71+640	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	482	2070:1909	1063+453	31.8 : 31.8%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	285	2084	1111	25.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	142	2034	271	52.4%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	332	2175:2175	281+183	71.5 : 71.5%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	1	1995	732	0.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	9	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	41	1993	332	12.3%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	97	2137	356	27.2%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	131	2127	354	37.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	8	1932	966	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	339	2066	1033	32.8%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	288	2066	1033	27.9%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	51	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	146	1800:1800	600+13	23.8 : 23.8%



Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	80	0	0	7.3	3.7	0.0	11.0	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	80	0	0	7.3	3.7	0.0	11.0	-	-	-	-
1/1	301	301	-	-	-	0.3	0.1	-	0.4	4.9	1.8	0.1	1.9
1/2+1/3	565	565	-	-	-	0.5	0.2	-	0.7	4.8	2.6	0.2	2.8
2/2+2/1	40	40	80	0	0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
3/2+3/1	482	482	-	-	-	1.0	0.2	-	1.3	9.3	3.1	0.2	3.3
3/3	285	285	-	-	-	0.6	0.2	-	0.8	9.8	2.5	0.2	2.7
4/1	142	142	-	-	-	1.0	0.5	-	1.5	38.0	2.2	0.5	2.7
4/2+4/3	332	332	-	-	-	2.3	1.2	-	3.5	37.8	3.2	1.2	4.4
5/1	1	1	-	-	-	0.0	0.0	-	0.0	14.8	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	41	41	-	-	-	0.1	0.1	-	0.2	15.8	0.2	0.1	0.3
8/2	97	97	-	-	-	0.1	0.2	-	0.2	9.1	0.2	0.2	0.4
8/3	131	131	-	-	-	0.0	0.3	-	0.3	9.1	0.6	0.3	0.9
9/1	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	7.5	0.0	0.0	0.0
10/2	339	339	-	-	-	0.5	0.2	-	0.7	7.7	1.2	0.2	1.4
10/3	288	288	-	-	-	0.4	0.2	-	0.6	7.6	1.0	0.2	1.2
11/1	51	51	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	142	142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

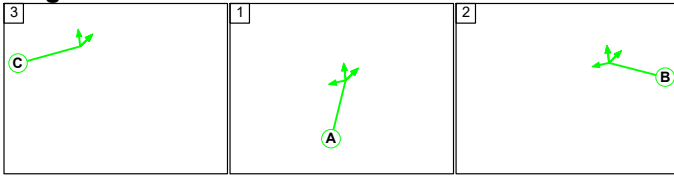
13/2	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	146	146	-	-	-	0.6	0.2	-	0.7	17.5	1.8	0.2	2.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		26.0		Total Delay for Signalled Lanes (pcuHr)		6.35		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		143.5		Total Delay for Signalled Lanes (pcuHr)		1.91		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		183.0		Total Delay for Signalled Lanes (pcuHr)		2.73		Cycle Time (s)		60	
		PRC Over All Lanes (%)		26.0		Total Delay Over All Lanes(pcuHr)		11.02					

Full Input Data And Results

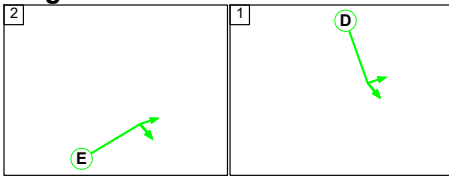
Scenario 12: '2023 Early Years 7-8AM' (FG7: '23EY\_7-8AM', Plan 1: 'Network Control Plan 1')

**Stage Sequence Diagram**

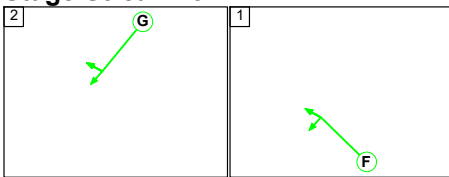
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

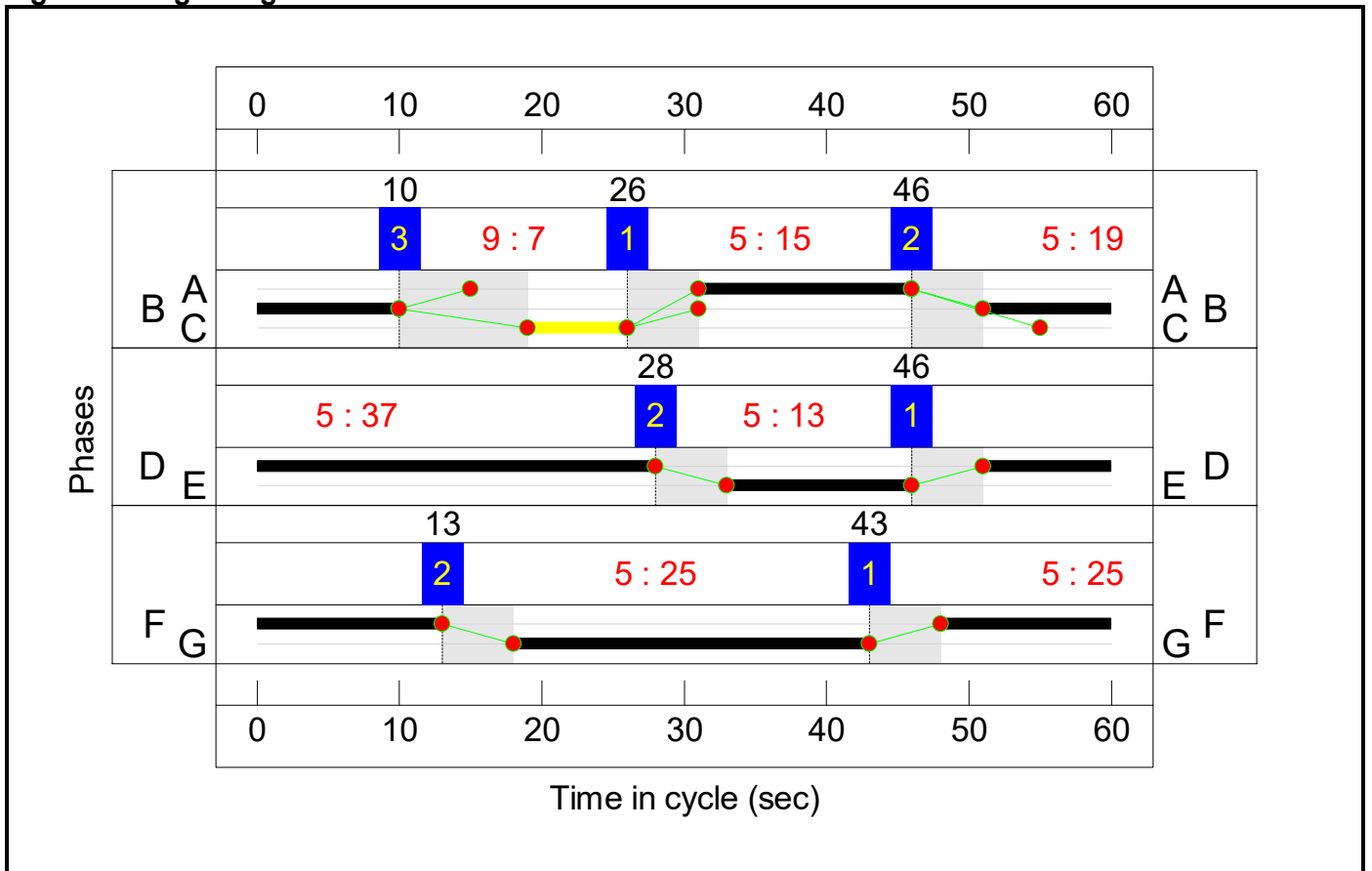
**Stage Stream: 2**

Stage	2	1
Duration	13	37
Change Point	28	46

**Stage Stream: 3**

Stage	2	1
Duration	25	25
Change Point	13	43

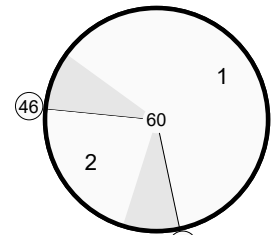
**Signal Timings Diagram**



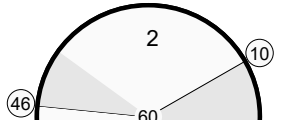
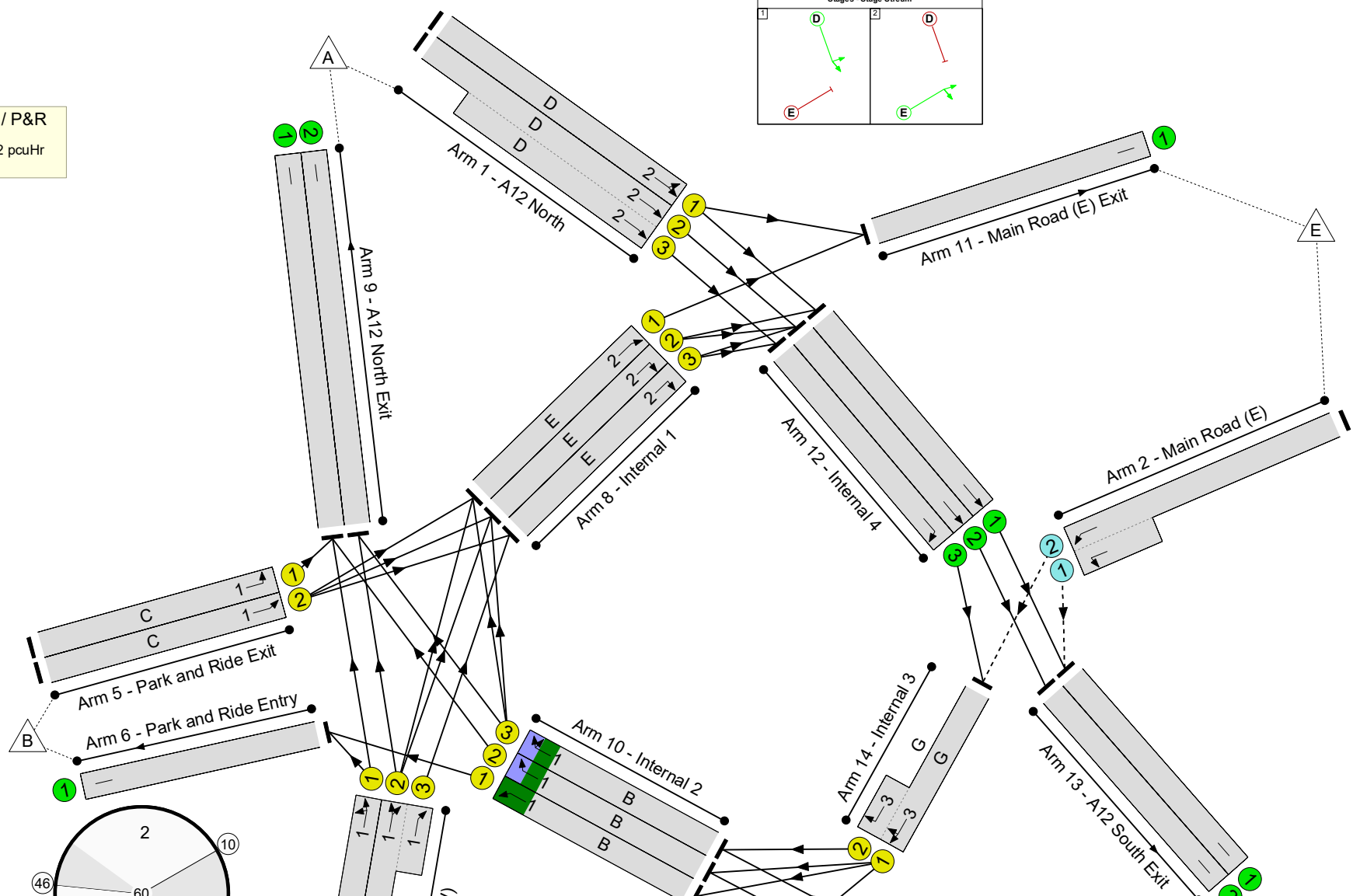
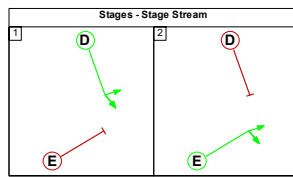
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -1.1 %  
 Total Traffic Delay: 34.2 pcuHr



C1 - PEED TSC SE 28 ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.0%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	91.0%
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	507	1964	1244	40.8%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	977	2105:2115	1182+645	53.5 : 53.5%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	90	950:1845	56+576	14.2 : 14.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1067	2070:1908	897+430	80.4 : 80.4%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	671	2084	903	74.3%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	467	2032	542	86.2%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	703	2175:2175	447+325	91.0 : 91.0%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	644	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	97	1993	465	20.9%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	273	2137	499	54.7%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	297	2127	496	59.8%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1178	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%



### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	43	1932	1095	3.9%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	721	2066	1171	61.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	683	2066	1171	58.3%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	107	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	633	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1066	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	715	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1066	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	353	1800:1800	772+27	44.2 : 44.2%

Full Input Data And Results

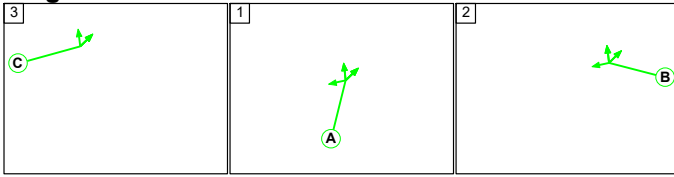
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>180</b>	<b>0</b>	<b>0</b>	<b>19.0</b>	<b>15.2</b>	<b>0.0</b>	<b>34.2</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>180</b>	<b>0</b>	<b>0</b>	<b>19.0</b>	<b>15.2</b>	<b>0.0</b>	<b>34.2</b>	-	-	-	-
1/1	507	507	-	-	-	0.8	0.3	-	1.1	7.9	4.1	0.3	4.4
1/2+1/3	977	977	-	-	-	1.5	0.6	-	2.0	7.6	5.4	0.6	6.0
2/2+2/1	90	90	180	0	0	0.0	0.1	-	0.1	3.4	0.0	0.1	0.1
3/2+3/1	1067	1067	-	-	-	4.1	2.0	-	6.1	20.6	10.4	2.0	12.4
3/3	671	671	-	-	-	2.6	1.4	-	4.1	21.9	9.3	1.4	10.7
4/1	467	467	-	-	-	2.7	2.9	-	5.6	43.3	7.4	2.9	10.3
4/2+4/3	703	703	-	-	-	3.9	4.5	-	8.4	42.9	8.3	4.5	12.8
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	644	644	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	97	97	-	-	-	0.4	0.1	-	0.5	18.8	0.7	0.1	0.8
8/2	273	273	-	-	-	0.9	0.6	-	1.5	19.4	1.2	0.6	1.8
8/3	297	297	-	-	-	0.9	0.7	-	1.7	20.0	1.3	0.7	2.0
9/1	1178	1178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	43	43	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	721	721	-	-	-	0.0	0.8	-	0.8	4.0	0.0	0.8	0.8
10/3	683	683	-	-	-	0.0	0.7	-	0.7	3.9	0.1	0.7	0.8
11/1	107	107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	633	633	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1066	1066	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

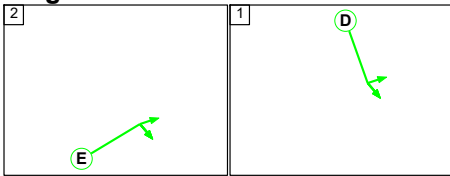
13/2	1066	1066	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	353	353	-	-	-	1.2	0.4	-	1.6	16.1	4.7	0.4	5.1
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-1.1		Total Delay for Signalled Lanes (pcuHr)		15.60		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		50.4		Total Delay for Signalled Lanes (pcuHr)		6.79		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		12.0		Total Delay for Signalled Lanes (pcuHr)		11.77		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-1.1		Total Delay Over All Lanes(pcuHr)		34.24					

**Stage Sequence Diagram**

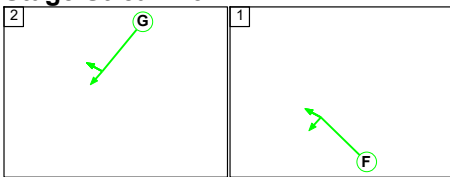
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

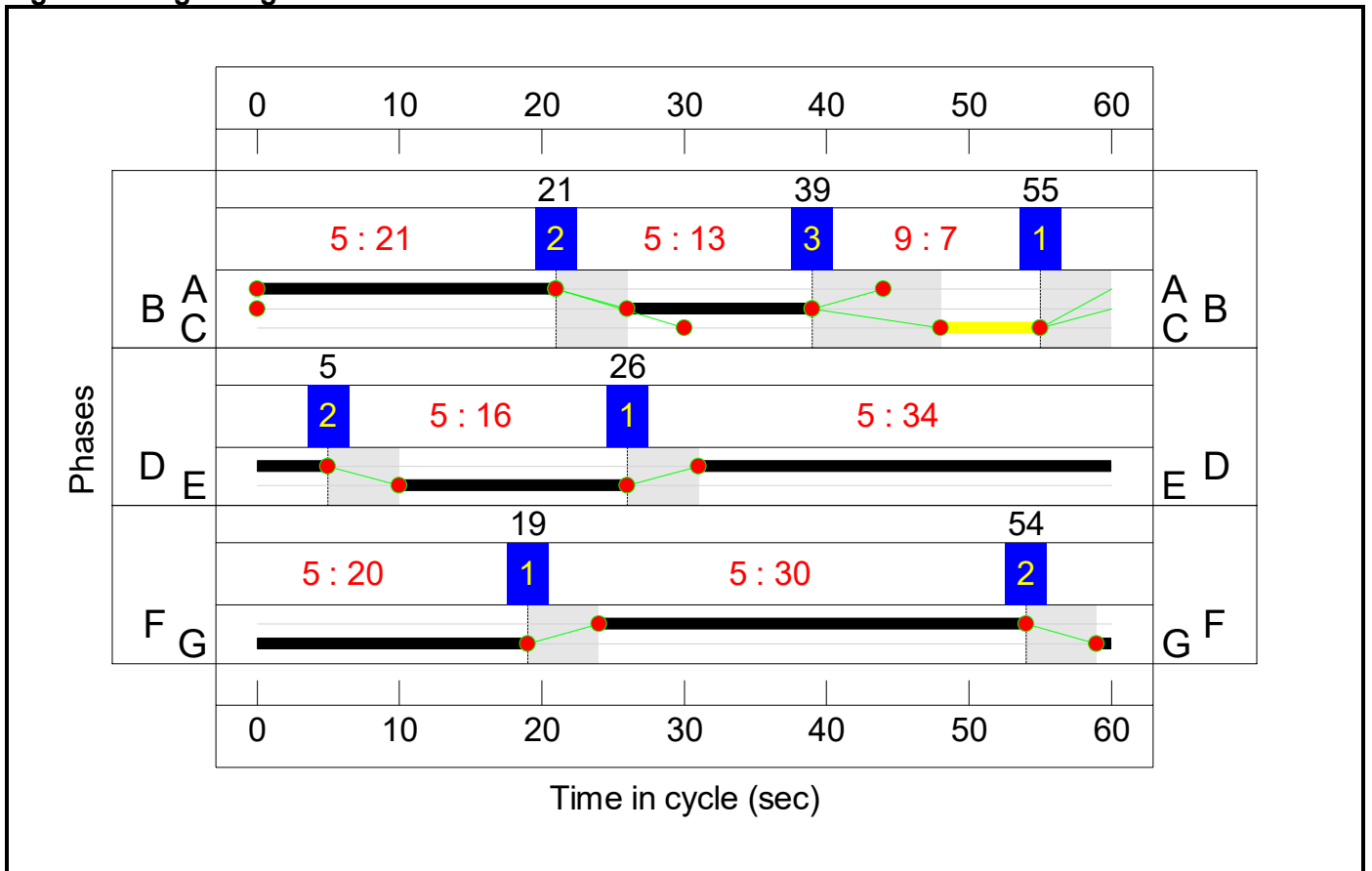
**Stage Stream: 2**

Stage	2	1
Duration	16	34
Change Point	5	26

**Stage Stream: 3**

Stage	2	1
Duration	20	30
Change Point	54	19

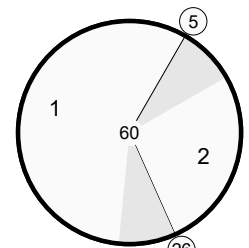
Signal Timings Diagram



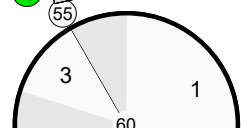
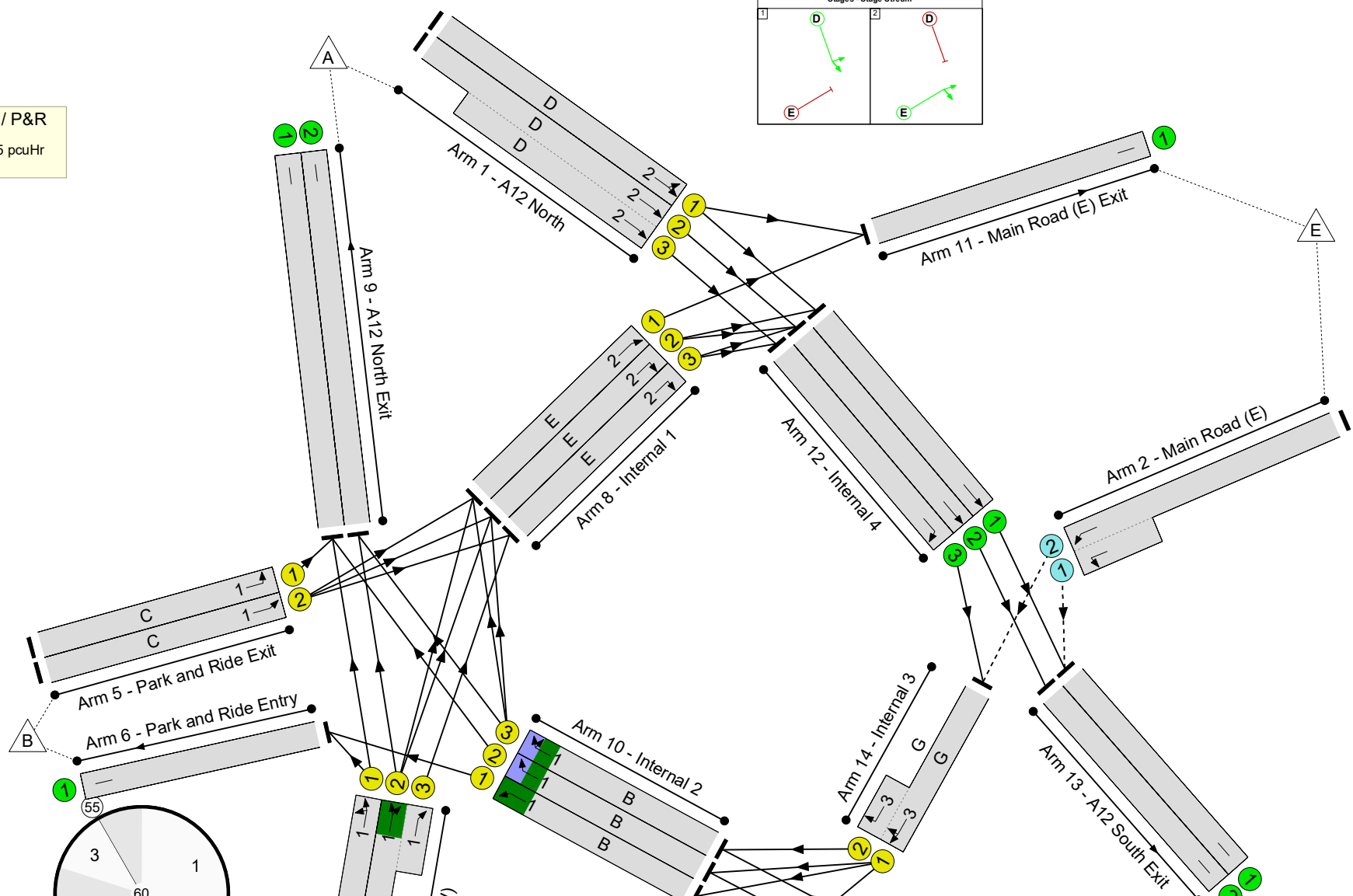
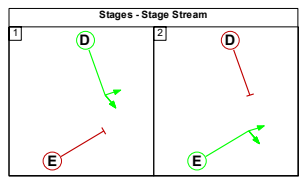
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -0.1 %  
 Total Traffic Delay: 37.5 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.1%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	90.1%
1/1	A12 North Left Ahead	U	2	N/A	D		1	34	-	609	1964	1146	53.2%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	34	-	1135	2105:2115	1111+628	65.3 : 65.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	160	950:1845	115+544	24.3 : 24.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	30	-	1259	2070:1908	1032+605	76.9 : 76.9%
3/3	A12 South Ahead	U	3	N/A	F		1	30	-	788	2084	1077	73.2%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	422	2034	746	56.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	848	2175:2175	515+426	90.1 : 90.1%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	5	1995	266	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	828	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	16	-	159	1993	565	28.2%
8/2	Internal 1 Right	U	2	N/A	E		1	16	-	369	2137	605	60.9%
8/3	Internal 1 Right	U	2	N/A	E		1	16	-	385	2127	603	63.9%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1230	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	747	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	51	1932	902	5.7%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	809	2066	964	83.9%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	798	2066	964	82.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	777	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1293	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	411	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1293	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	20	-	439	1800:1800	630+15	68.1 : 68.1%

Full Input Data And Results

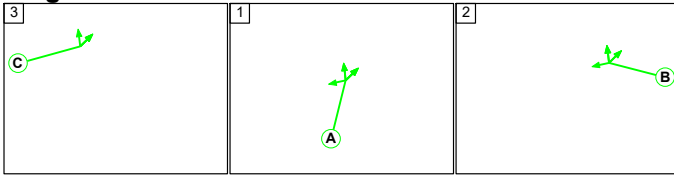
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>320</b>	<b>0</b>	<b>0</b>	<b>20.2</b>	<b>17.3</b>	<b>0.0</b>	<b>37.5</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>320</b>	<b>0</b>	<b>0</b>	<b>20.2</b>	<b>17.3</b>	<b>0.0</b>	<b>37.5</b>	-	-	-	-
1/1	609	609	-	-	-	1.3	0.6	-	1.8	10.9	6.1	0.6	6.7
1/2+1/3	1135	1135	-	-	-	2.3	0.9	-	3.3	10.4	7.7	0.9	8.6
2/2+2/1	160	160	320	0	0	0.0	0.2	-	0.2	4.0	0.1	0.2	0.3
3/2+3/1	1259	1259	-	-	-	3.7	1.7	-	5.4	15.3	10.4	1.7	12.0
3/3	788	788	-	-	-	2.5	1.4	-	3.8	17.4	10.1	1.4	11.4
4/1	422	422	-	-	-	1.8	0.6	-	2.4	20.7	5.5	0.6	6.2
4/2+4/3	848	848	-	-	-	3.9	4.2	-	8.1	34.4	9.7	4.2	13.9
5/1	5	5	-	-	-	0.0	0.0	-	0.0	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	159	159	-	-	-	0.4	0.2	-	0.6	14.0	1.7	0.2	1.9
8/2	369	369	-	-	-	0.3	0.8	-	1.1	10.6	4.4	0.8	5.2
8/3	385	385	-	-	-	0.4	0.9	-	1.3	11.7	4.4	0.9	5.3
9/1	1230	1230	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	51	51	-	-	-	0.1	0.0	-	0.1	5.6	0.1	0.0	0.2
10/2	809	809	-	-	-	0.8	2.5	-	3.3	14.7	1.9	2.5	4.4
10/3	798	798	-	-	-	0.8	2.3	-	3.1	13.9	1.8	2.3	4.2
11/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1293	1293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

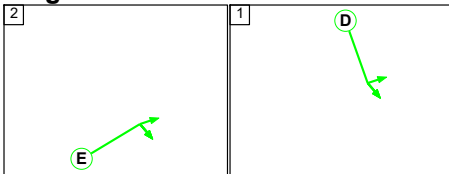
13/2	1293	1293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	439	439	-	-	-	1.9	1.1	-	2.9	23.9	6.9	1.1	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-0.1		Total Delay for Signalled Lanes (pcuHr)		17.16		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		37.9		Total Delay for Signalled Lanes (pcuHr)		8.08		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		17.0		Total Delay for Signalled Lanes (pcuHr)		12.09		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-0.1		Total Delay Over All Lanes(pcuHr)		37.51					

**Stage Sequence Diagram**

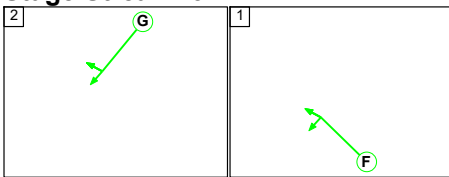
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

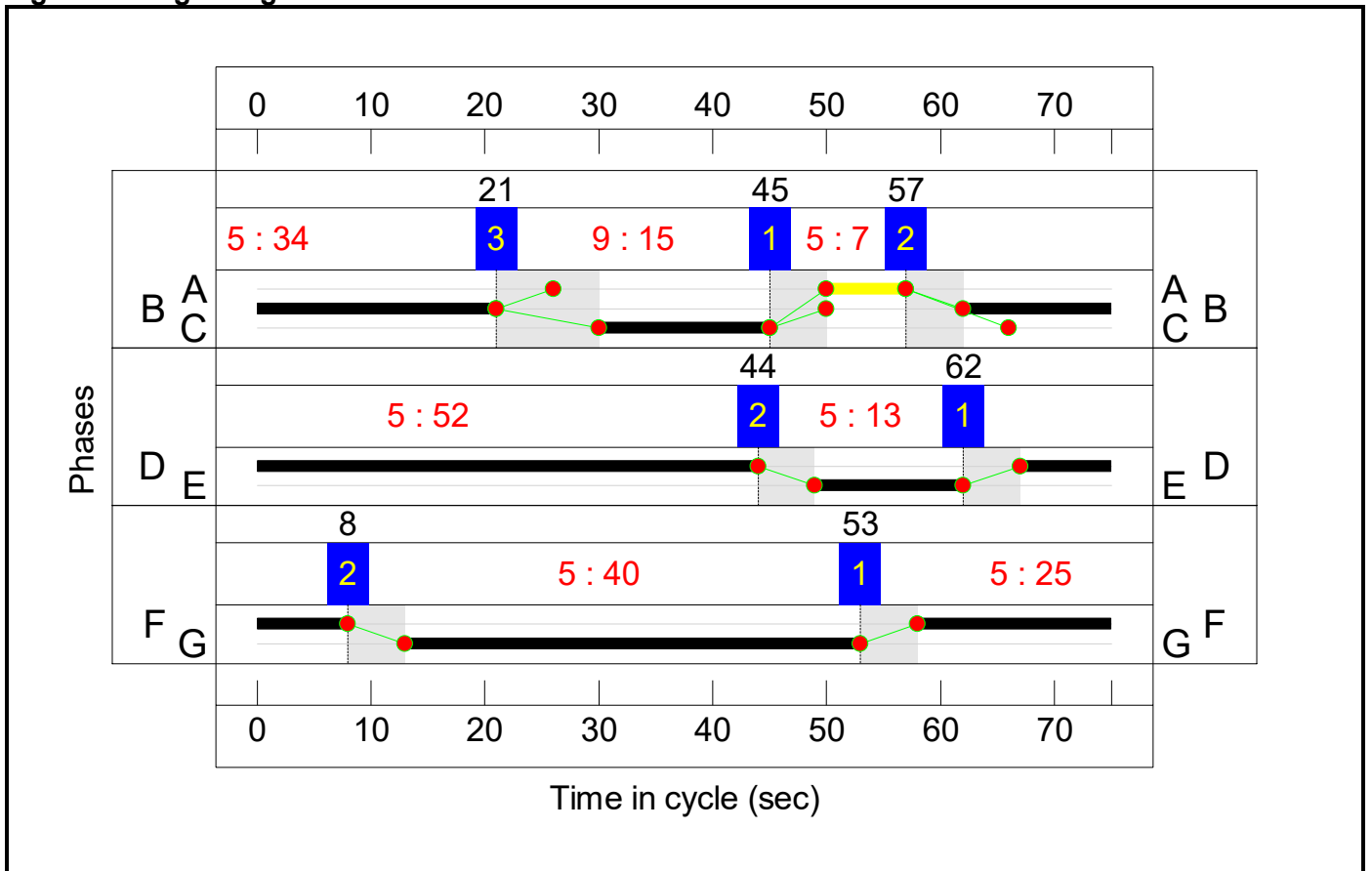
**Stage Stream: 2**

Stage	2	1
Duration	13	52
Change Point	44	62

**Stage Stream: 3**

Stage	2	1
Duration	40	25
Change Point	8	53

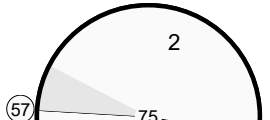
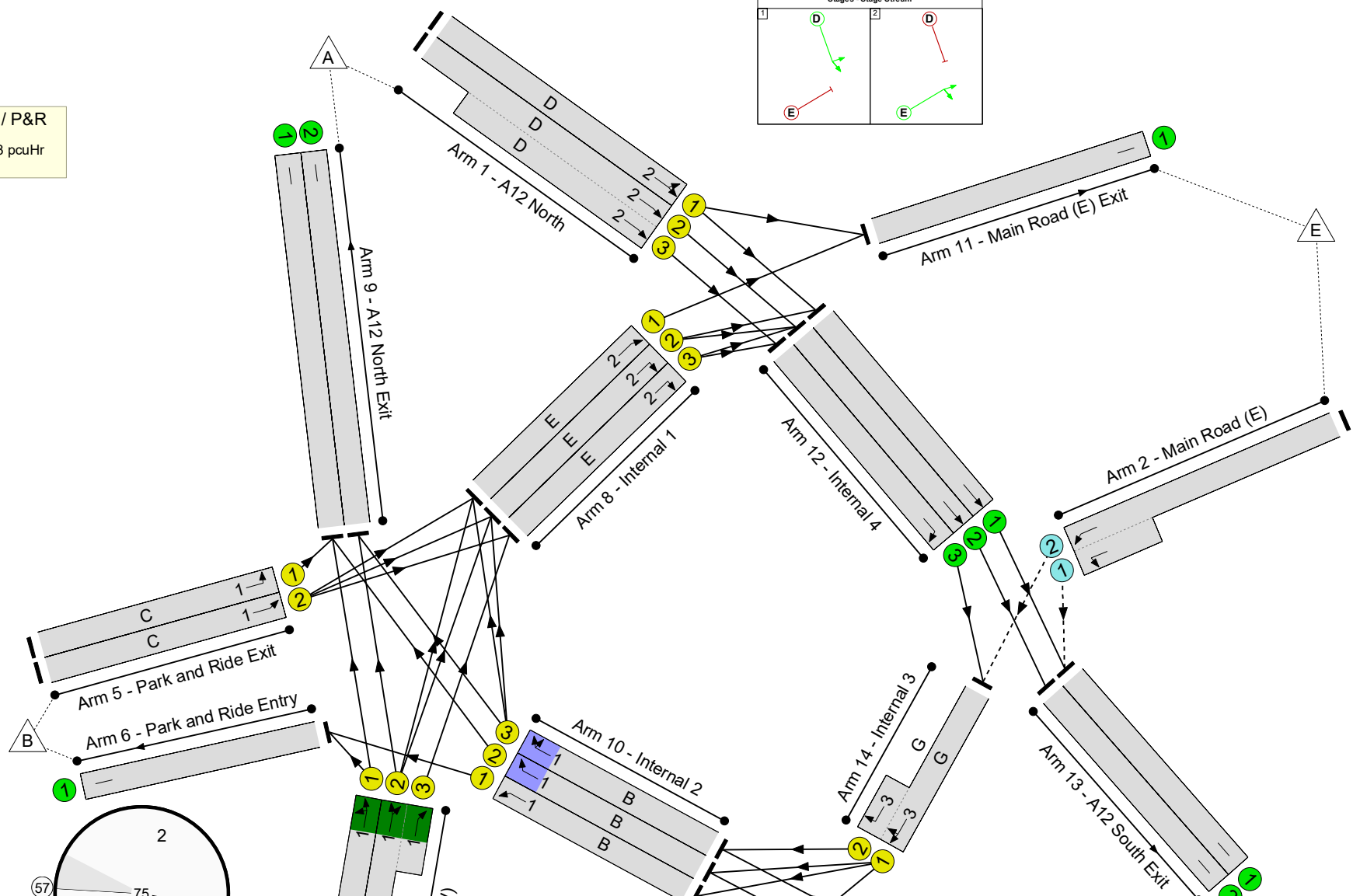
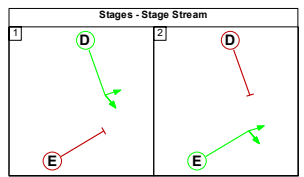
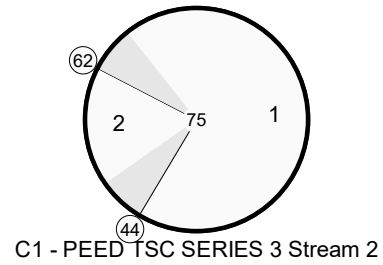
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -12.9 %  
 Total Traffic Delay: 68.3 pcuHr





## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	101.6%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	101.6%
1/1	A12 North Left Ahead	U	2	N/A	D		1	52	-	559	1964	1388	40.3%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	52	-	1028	2105:2115	1201+722	53.4 : 53.4%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	262	950:1845	297+292	44.5 : 44.5%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1363	2070:1910	718+638	101.6 : 99.3%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	703	2084	722	97.3%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	382	2035	597	64.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	629	2175:2175	434+391	76.3 : 76.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	5	1995	426	1.2%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	11	2125	453	2.4%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1139	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	173	1993	372	46.5%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	262	2137	399	65.7%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	306	2127	397	77.1%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1124	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	606	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	2	1932	902	0.2%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	737	2066	964	75.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	707	2066	964	73.3%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	180	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	813	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	40	-	519	1800:1800	984+8	52.3 : 52.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>524</b>	<b>0</b>	<b>0</b>	<b>26.4</b>	<b>41.9</b>	<b>0.0</b>	<b>68.3</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>524</b>	<b>0</b>	<b>0</b>	<b>26.4</b>	<b>41.9</b>	<b>0.0</b>	<b>68.3</b>	-	-	-	-
1/1	559	559	-	-	-	0.7	0.3	-	1.0	6.7	4.7	0.3	5.0
1/2+1/3	1028	1028	-	-	-	1.3	0.6	-	1.8	6.4	5.5	0.6	6.1
2/2+2/1	262	262	524	0	0	0.1	0.4	-	0.5	6.5	0.6	0.4	1.0
3/2+3/1	1363	1352	-	-	-	9.5	22.5	-	31.9	84.3	15.2	22.5	37.7
3/3	703	703	-	-	-	4.7	9.3	-	14.0	71.6	14.3	9.3	23.5
4/1	382	382	-	-	-	2.4	0.9	-	3.3	31.4	6.9	0.9	7.8
4/2+4/3	629	629	-	-	-	3.9	1.6	-	5.5	31.3	7.8	1.6	9.4
5/1	5	5	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	11	11	-	-	-	0.1	0.0	-	0.1	27.7	0.2	0.0	0.2
6/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1139	1139	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	173	173	-	-	-	1.5	0.4	-	1.9	40.5	3.4	0.4	3.9
8/2	262	262	-	-	-	0.4	0.9	-	1.4	19.1	5.0	0.9	5.9
8/3	306	306	-	-	-	0.6	1.6	-	2.2	26.3	6.0	1.6	7.6
9/1	1113	1113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	726	726	-	-	-	0.0	1.5	-	1.5	7.7	0.1	1.5	1.6
10/3	707	707	-	-	-	0.0	1.4	-	1.4	7.1	0.1	1.4	1.4
11/1	180	180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	387	387	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	813	813	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

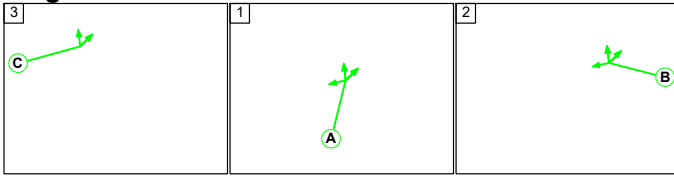
13/2	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	519	519	-	-	-	1.1	0.5	-	1.7	11.7	6.9	0.5	7.4
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		18.0	Total Delay for Signalled Lanes (pcuHr)		11.86	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		16.8	Total Delay for Signalled Lanes (pcuHr)		8.43	Cycle Time (s)		75			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-12.9	Total Delay for Signalled Lanes (pcuHr)		47.57	Cycle Time (s)		75			
		PRC Over All Lanes (%)		-12.9	Total Delay Over All Lanes(pcuHr)		68.34						

Full Input Data And Results

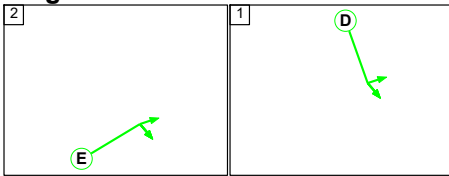
Scenario 15: '2023 Early Years 5-6PM' (FG10: '23EY\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

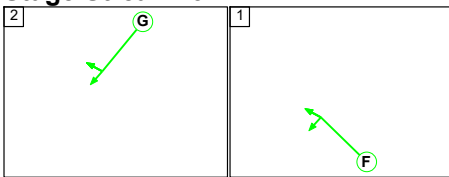
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

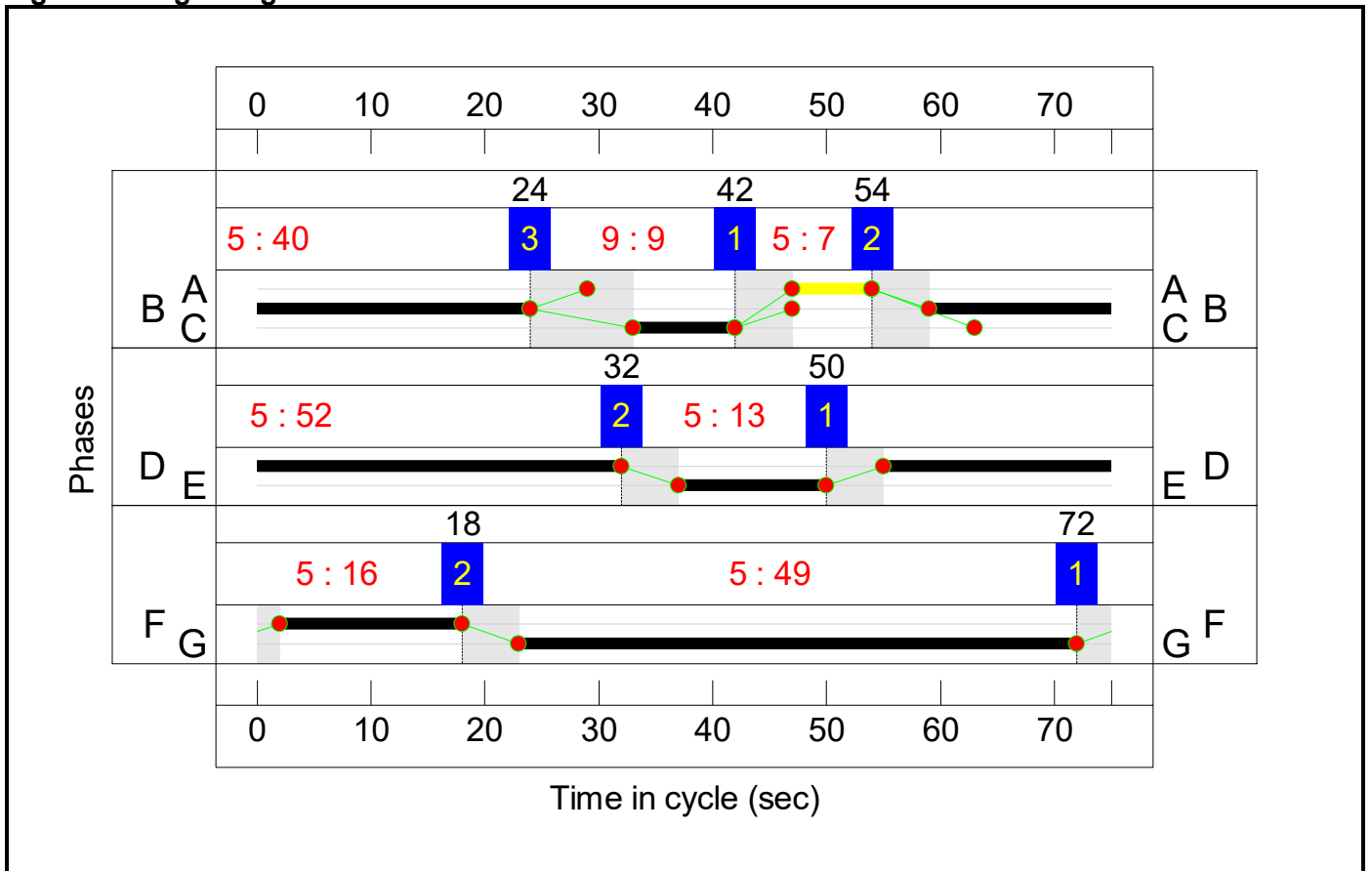
Stage Stream: 2

Stage	2	1
Duration	13	52
Change Point	32	50

Stage Stream: 3

Stage	2	1
Duration	49	16
Change Point	18	72

**Signal Timings Diagram**

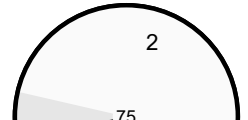
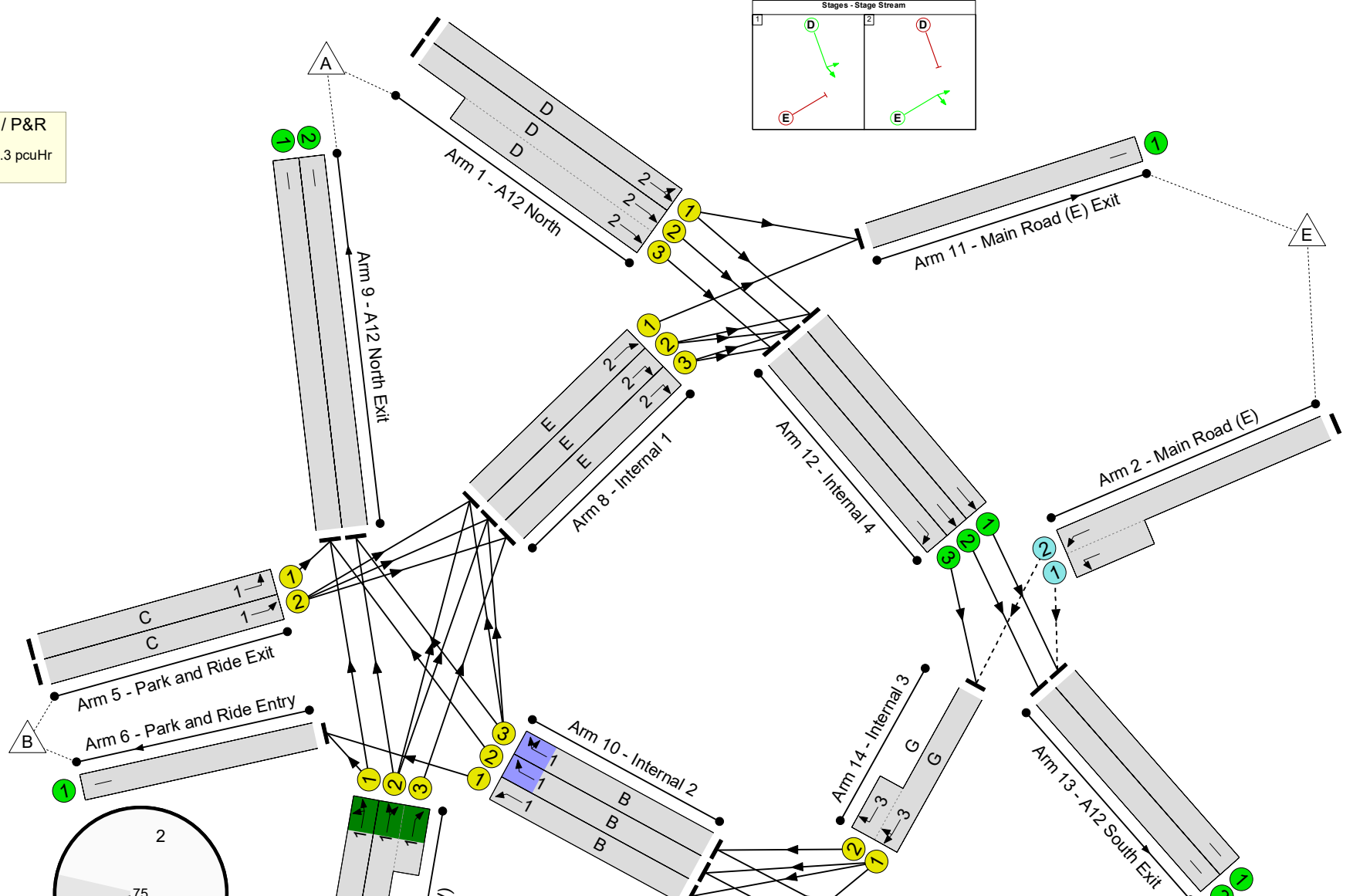
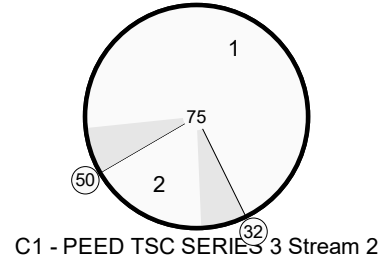


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -69.8 %  
 Total Traffic Delay: 374.3 pcuHr



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	152.8%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	152.8%
1/1	A12 North Left Ahead	U	2	N/A	D		1	52	-	544	1964	1388	39.2%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	52	-	1025	2105:2115	1189+767	52.4 : 52.4%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	383	950:1845	318+207	73.0 : 73.0%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	16	-	1305	2070:1910	469+433	152.8 : 135.8%
3/3	A12 South Ahead	U	3	N/A	F		1	16	-	697	2084	472	147.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	280	2034	597	46.9%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	528	2175:2175	432+395	63.8 : 63.8%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	21	1995	266	7.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	23	2125	283	8.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1207	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	231	1993	372	49.8%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	160	2137	399	39.9%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	266	2127	397	67.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	593	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	722	2066	1129	42.0%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	699	2066	1129	42.0%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	616	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	969	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	969	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	49	-	634	1800:1800	1200+4	52.7 : 52.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>766</b>	<b>0</b>	<b>0</b>	<b>50.8</b>	<b>323.6</b>	<b>0.0</b>	<b>374.3</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>766</b>	<b>0</b>	<b>0</b>	<b>50.8</b>	<b>323.6</b>	<b>0.0</b>	<b>374.3</b>	-	-	-	-
1/1	544	544	-	-	-	0.7	0.3	-	1.0	6.6	4.5	0.3	4.9
1/2+1/3	1025	1025	-	-	-	1.2	0.5	-	1.8	6.3	5.4	0.5	5.9
2/2+2/1	383	383	766	0	0	0.2	1.3	-	1.5	13.9	1.9	1.3	3.2
3/2+3/1	1305	902	-	-	-	26.0	203.0	-	229.0	631.7	27.6	203.0	230.7
3/3	697	472	-	-	-	14.2	113.8	-	128.1	661.5	19.8	113.8	133.7
4/1	280	280	-	-	-	1.7	0.4	-	2.1	27.4	4.7	0.4	5.2
4/2+4/3	528	528	-	-	-	3.1	0.9	-	4.0	27.4	5.4	0.9	6.3
5/1	21	21	-	-	-	0.2	0.0	-	0.2	35.9	0.4	0.0	0.4
5/2	23	23	-	-	-	0.2	0.0	-	0.2	35.5	0.4	0.0	0.5
6/1	8	8	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1054	1054	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	185	185	-	-	-	0.7	0.5	-	1.2	23.4	2.9	0.5	3.3
8/2	159	159	-	-	-	0.4	0.3	-	0.7	16.2	0.6	0.3	0.9
8/3	266	266	-	-	-	0.6	1.0	-	1.6	22.0	1.3	1.0	2.3
9/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	6	6	-	-	-	0.0	0.0	-	0.0	7.6	0.0	0.0	0.0
10/2	474	474	-	-	-	0.1	0.4	-	0.5	3.8	0.4	0.4	0.7
10/3	474	474	-	-	-	0.1	0.4	-	0.5	3.7	0.3	0.4	0.7
11/1	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

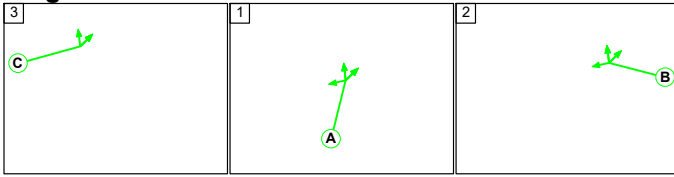
13/2	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	634	634	-	-	-	1.3	0.6	-	1.9	10.7	7.6	0.6	8.1
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		41.0		Total Delay for Signalled Lanes (pcuHr)		7.59		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		34.3		Total Delay for Signalled Lanes (pcuHr)		6.33		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-69.8		Total Delay for Signalled Lanes (pcuHr)		358.95		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-69.8		Total Delay Over All Lanes(pcuHr)		374.34					

Full Input Data And Results

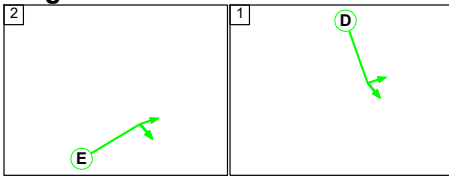
Scenario 16: '2028 Reference Case 6-7AM' (FG21: '28RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

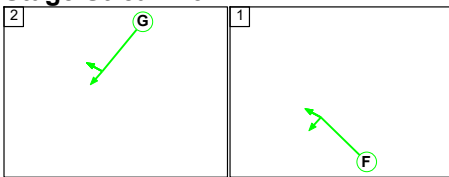
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

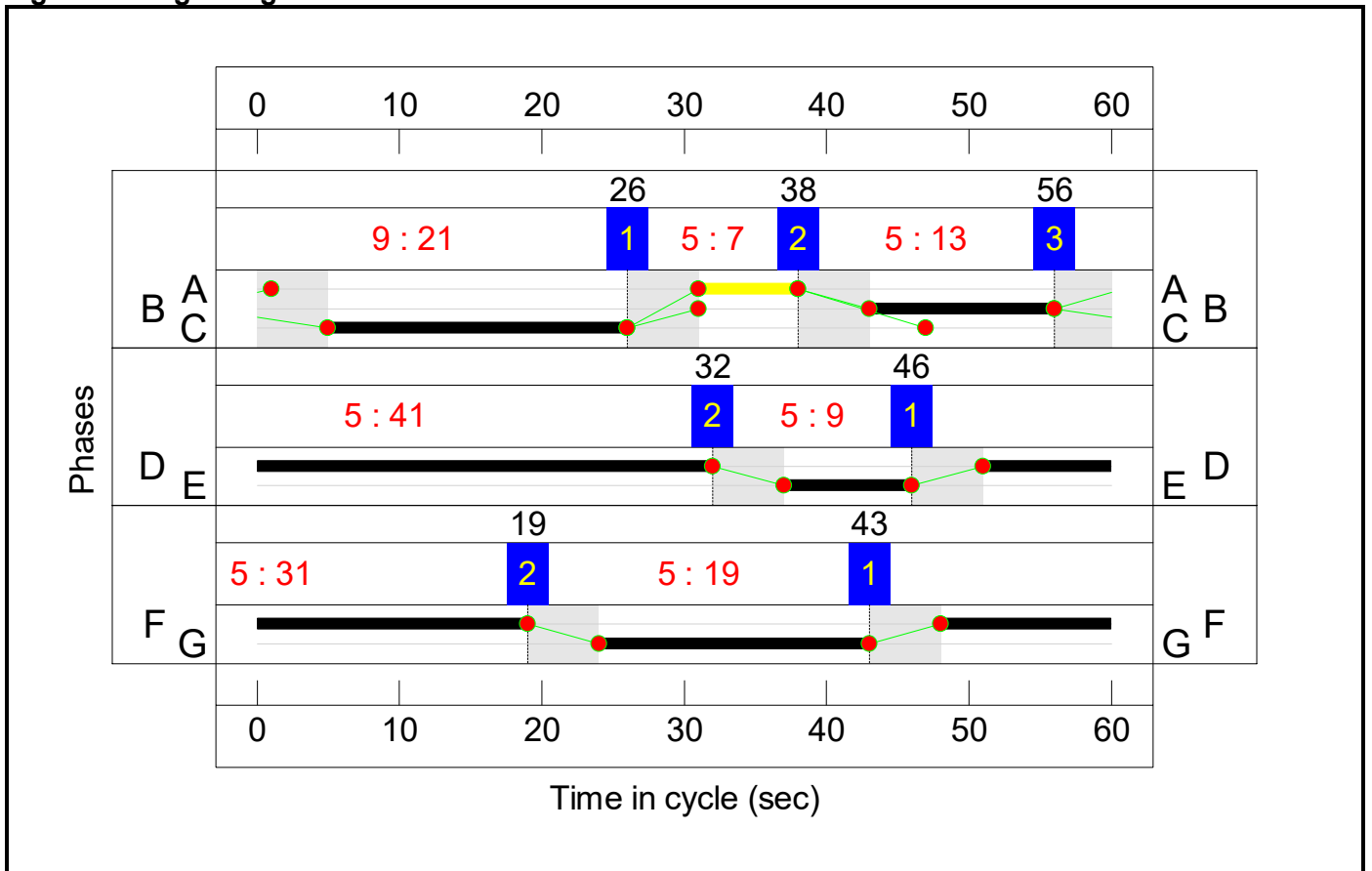
Stage Stream: 2

Stage	2	1
Duration	9	41
Change Point	32	46

Stage Stream: 3

Stage	2	1
Duration	19	31
Change Point	19	43

Signal Timings Diagram

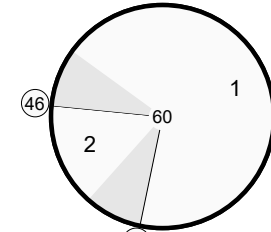




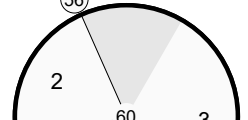
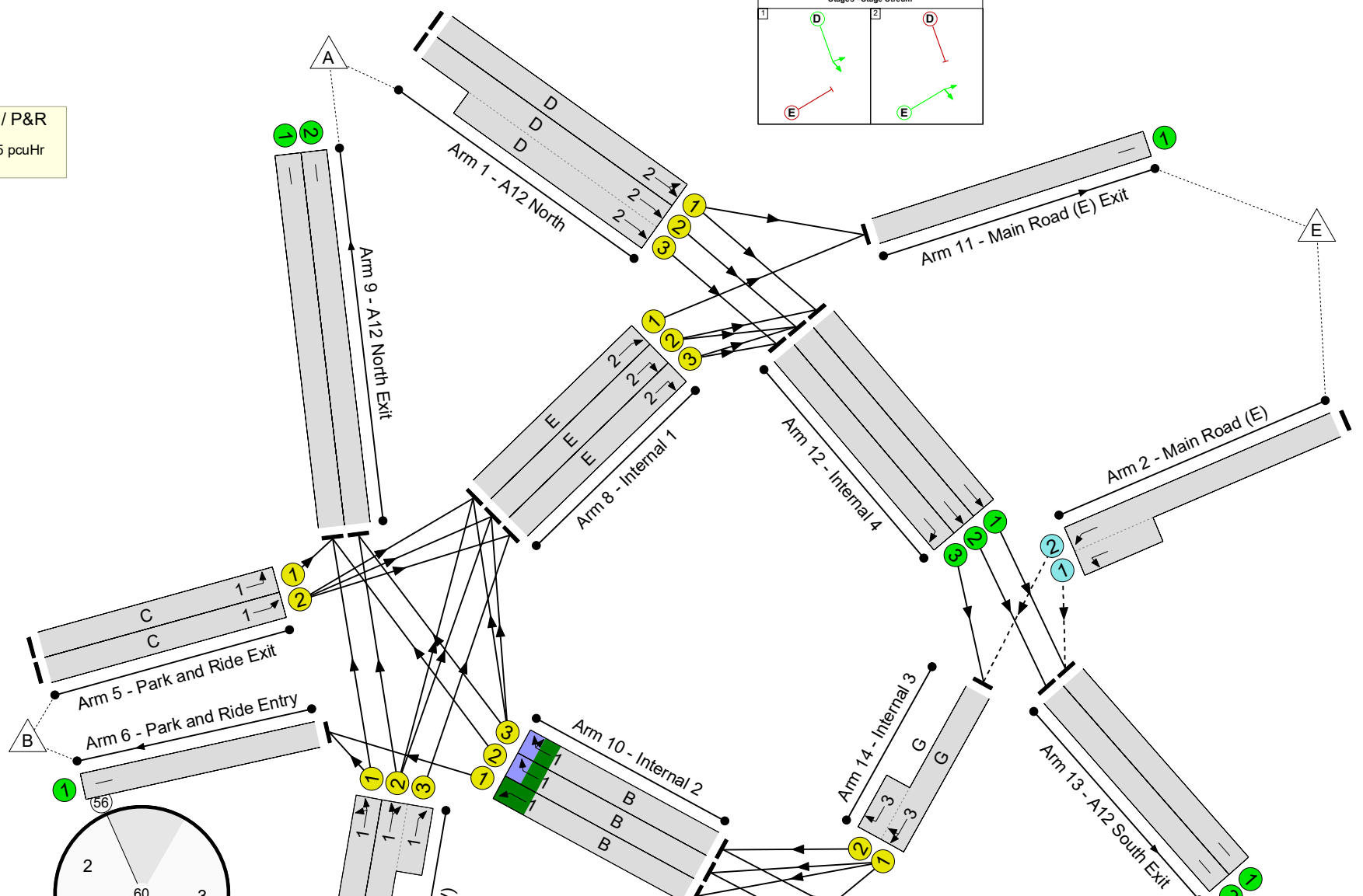
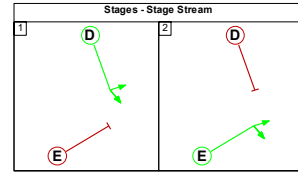
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 27.2 %  
 Total Traffic Delay: 10.5 pcuHr



C1 - PEED TS32 SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>70.8%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>70.8%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	302	1964	1375	22.0%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	573	2105:2115	1326+457	32.1 : 32.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	41	950:1845	89+640	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	444	2070:1909	1059+519	28.1 : 28.1%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	238	2084	1111	21.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	140	2034	271	51.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	329	2175:2175	281+184	70.8 : 70.8%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	0	1995	732	0.0%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	9	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	44	1993	332	13.2%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	97	2137	356	27.2%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	132	2127	354	37.2%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	8	1932	966	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	301	2066	1033	29.1%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	239	2066	1033	23.1%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	54	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	147	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	152	1800:1800	600+4	25.2 : 25.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>82</b>	<b>0</b>	<b>0</b>	<b>7.0</b>	<b>3.5</b>	<b>0.0</b>	<b>10.5</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>82</b>	<b>0</b>	<b>0</b>	<b>7.0</b>	<b>3.5</b>	<b>0.0</b>	<b>10.5</b>	-	-	-	-
1/1	302	302	-	-	-	0.3	0.1	-	0.4	4.9	1.8	0.1	1.9
1/2+1/3	573	573	-	-	-	0.5	0.2	-	0.8	4.8	2.6	0.2	2.8
2/2+2/1	41	41	82	0	0	0.0	0.0	-	0.0	2.6	0.0	0.0	0.0
3/2+3/1	444	444	-	-	-	0.9	0.2	-	1.1	9.0	2.6	0.2	2.8
3/3	238	238	-	-	-	0.5	0.1	-	0.6	9.5	2.0	0.1	2.2
4/1	140	140	-	-	-	0.9	0.5	-	1.5	37.8	2.1	0.5	2.7
4/2+4/3	329	329	-	-	-	2.2	1.2	-	3.4	37.5	3.2	1.2	4.3
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	44	44	-	-	-	0.1	0.1	-	0.2	15.3	0.2	0.1	0.3
8/2	97	97	-	-	-	0.0	0.2	-	0.2	8.7	0.2	0.2	0.4
8/3	132	132	-	-	-	0.1	0.3	-	0.3	9.4	0.7	0.3	0.9
9/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	7.5	0.0	0.0	0.0
10/2	301	301	-	-	-	0.4	0.2	-	0.6	7.6	1.1	0.2	1.3
10/3	239	239	-	-	-	0.3	0.2	-	0.5	7.4	0.8	0.2	1.0
11/1	54	54	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	147	147	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

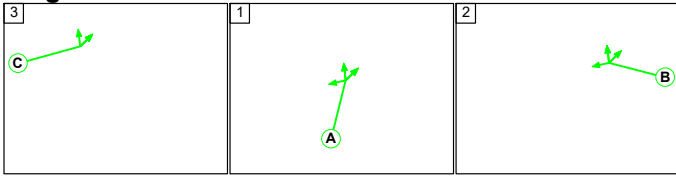
13/2	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	152	152	-	-	-	0.6	0.2	-	0.7	17.7	1.9	0.2	2.1
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		27.2		Total Delay for Signalled Lanes (pcuHr)		6.05		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		141.7		Total Delay for Signalled Lanes (pcuHr)		1.93		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		219.8		Total Delay for Signalled Lanes (pcuHr)		2.49		Cycle Time (s)		60	
		PRC Over All Lanes (%)		27.2		Total Delay Over All Lanes(pcuHr)		10.50					

Full Input Data And Results

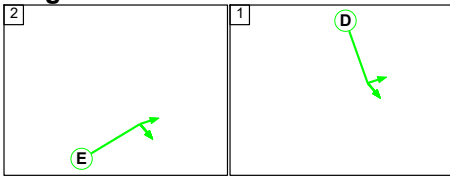
Scenario 17: '2028 Reference Case 7-8AM' (FG22: '28RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

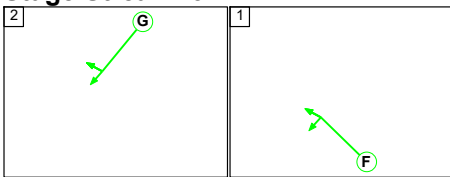
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

Stage Stream: 2

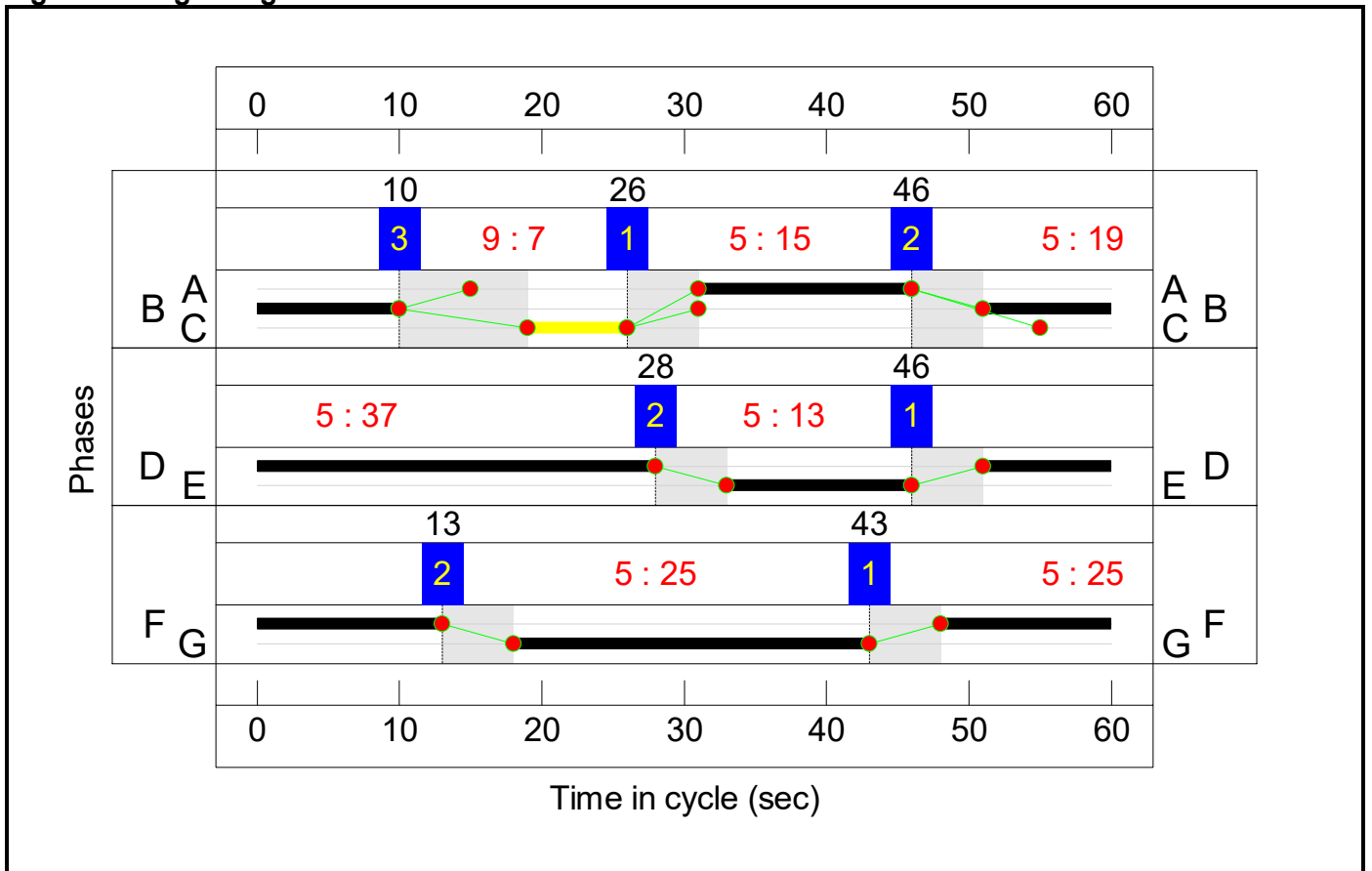
Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43



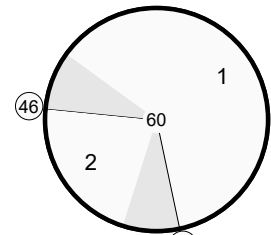
Signal Timings Diagram



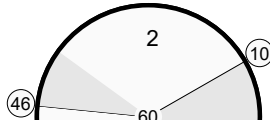
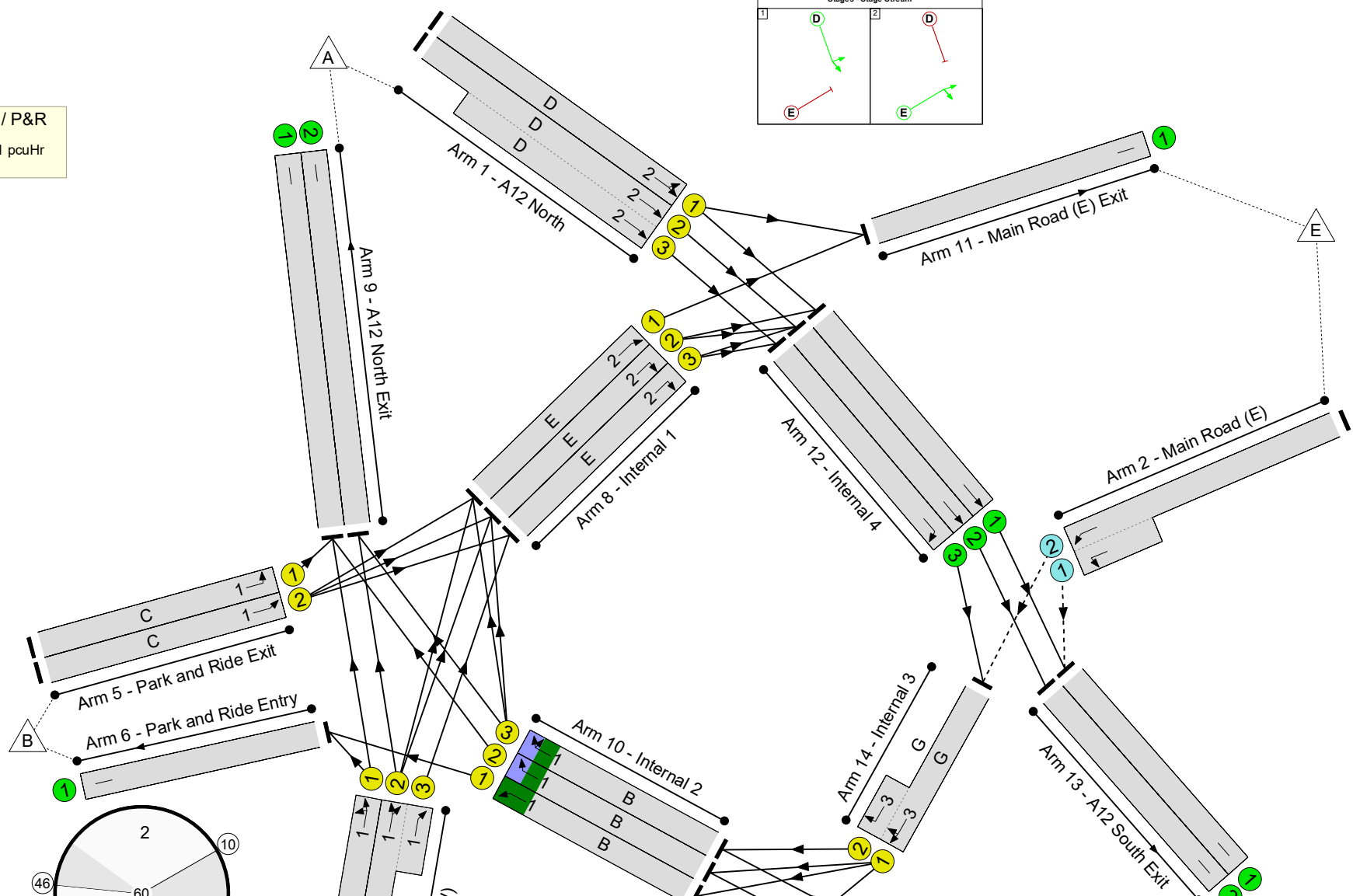
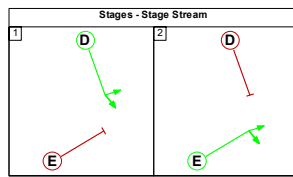
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 2.5 %  
 Total Traffic Delay: 30.1 pcuHr



C1 - PEED TSC SE 28 ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>87.8%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>87.8%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	544	1960	1241	43.8%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	1008	2105:2115	1186+615	56.0 : 56.0%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	95	950:1845	92+580	14.1 : 14.1%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1034	2070:1908	897+485	74.8 : 74.8%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	609	2084	903	67.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	439	2032	542	81.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	683	2175:2175	444+334	87.8 : 87.8%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	664	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	103	1993	465	22.1%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	271	2137	499	54.3%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	294	2127	496	59.2%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1100	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	639	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	44	1932	1095	4.0%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	671	2066	1171	57.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	621	2066	1171	53.0%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	168	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	614	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1094	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1094	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	357	1800:1800	772+27	44.7 : 44.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>190</b>	<b>0</b>	<b>0</b>	<b>18.0</b>	<b>12.1</b>	<b>0.0</b>	<b>30.1</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>190</b>	<b>0</b>	<b>0</b>	<b>18.0</b>	<b>12.1</b>	<b>0.0</b>	<b>30.1</b>	-	-	-	-
1/1	544	544	-	-	-	0.8	0.4	-	1.2	8.2	4.5	0.4	4.9
1/2+1/3	1008	1008	-	-	-	1.5	0.6	-	2.2	7.8	5.9	0.6	6.5
2/2+2/1	95	95	190	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2+3/1	1034	1034	-	-	-	3.9	1.5	-	5.3	18.6	9.3	1.5	10.8
3/3	609	609	-	-	-	2.3	1.0	-	3.3	19.7	8.1	1.0	9.1
4/1	439	439	-	-	-	2.5	2.1	-	4.6	37.4	6.8	2.1	8.9
4/2+4/3	683	683	-	-	-	3.7	3.4	-	7.1	37.3	7.7	3.4	11.0
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	103	103	-	-	-	0.4	0.1	-	0.5	17.9	0.7	0.1	0.8
8/2	271	271	-	-	-	0.8	0.6	-	1.4	18.1	1.1	0.6	1.6
8/3	294	294	-	-	-	0.8	0.7	-	1.5	18.6	1.1	0.7	1.8
9/1	1100	1100	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	639	639	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	44	44	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	671	671	-	-	-	0.0	0.7	-	0.7	3.6	0.0	0.7	0.7
10/3	621	621	-	-	-	0.0	0.6	-	0.6	3.5	0.1	0.6	0.7
11/1	168	168	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	614	614	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1094	1094	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

13/2	1094	1094	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	357	357	-	-	-	1.2	0.4	-	1.6	16.2	4.8	0.4	5.2
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		2.5		Total Delay for Signalled Lanes (pcuHr)		12.99		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		51.9		Total Delay for Signalled Lanes (pcuHr)		6.81		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		20.3		Total Delay for Signalled Lanes (pcuHr)		10.27		Cycle Time (s)		60	
		PRC Over All Lanes (%)		2.5		Total Delay Over All Lanes(pcuHr)		30.15					

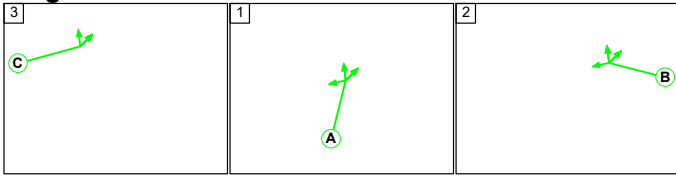


Full Input Data And Results

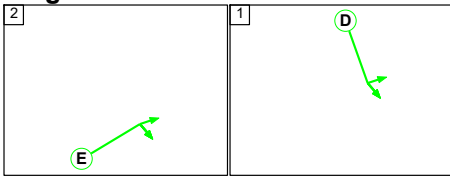
Scenario 18: '2028 Reference Case 8-9AM' (FG23: '28RC\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

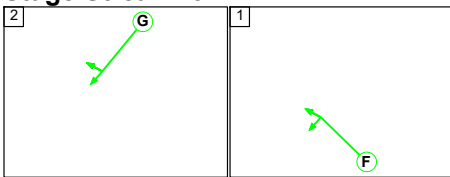
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

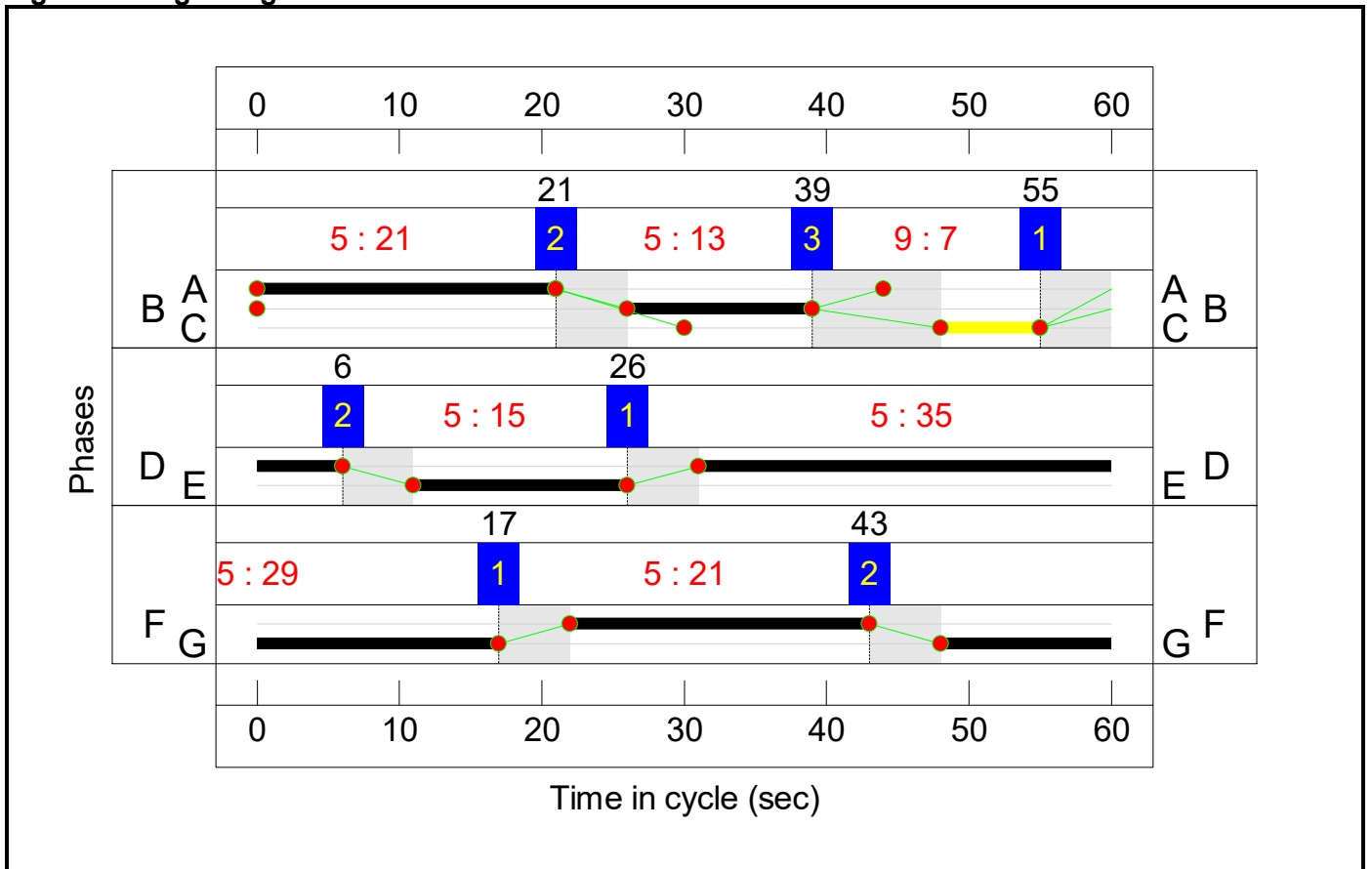
Stage Stream: 2

Stage	2	1
Duration	15	35
Change Point	6	26

Stage Stream: 3

Stage	2	1
Duration	29	21
Change Point	43	17

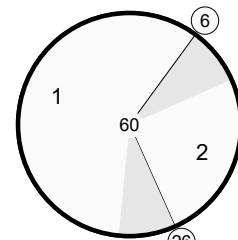
Signal Timings Diagram



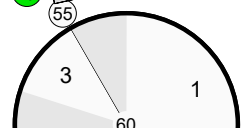
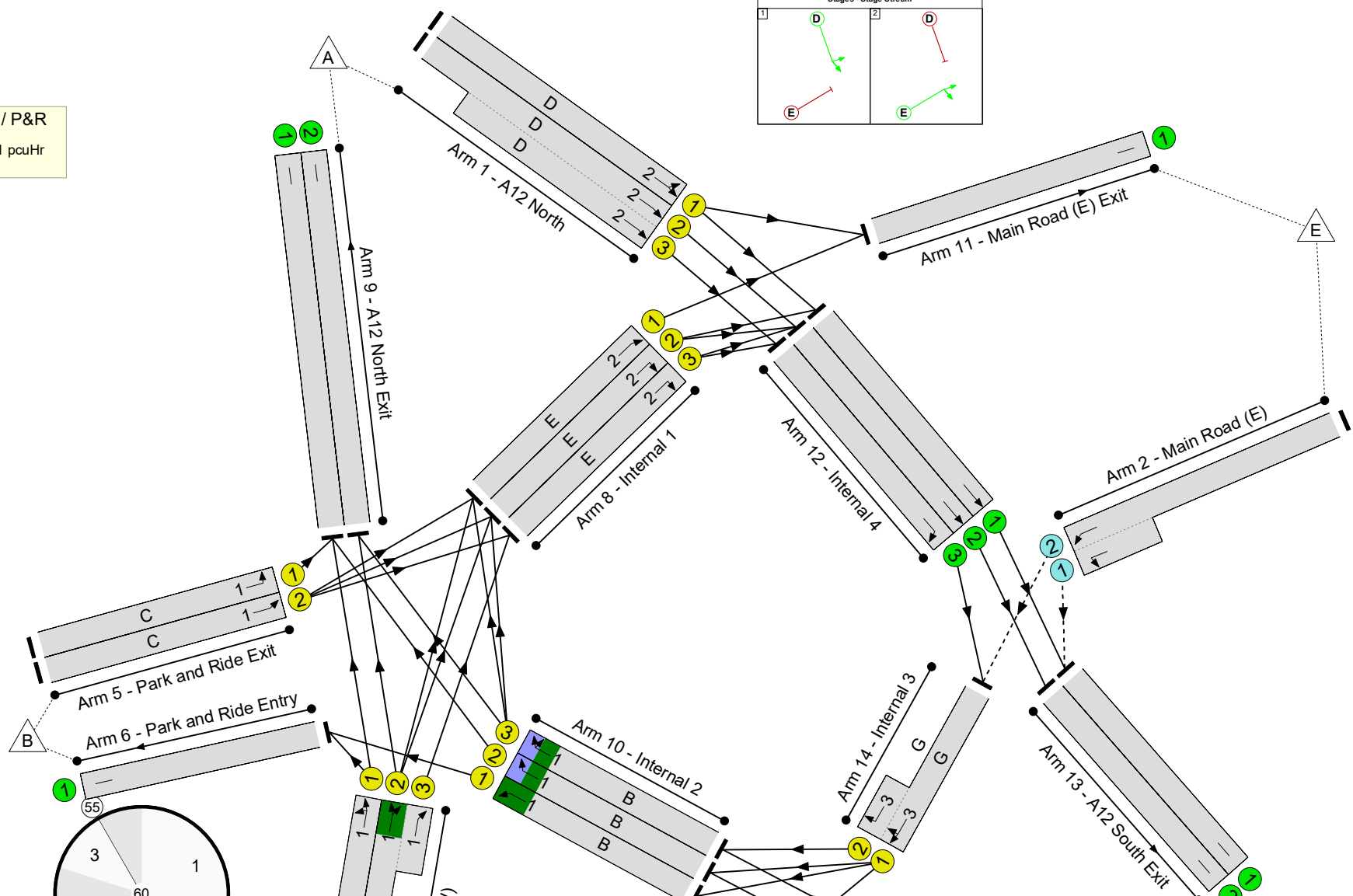
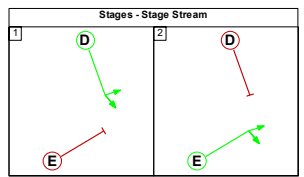
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -16.1 %  
 Total Traffic Delay: 95.1 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	104.5%
1/1	A12 North Left Ahead	U	2	N/A	D		1	35	-	641	1964	1178	54.4%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	35	-	1163	2105:2115	1136+623	66.1 : 66.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	166	950:1845	138+537	24.6 : 24.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	21	-	1301	2070:1908	759+486	104.5 : 104.5%
3/3	A12 South Ahead	U	3	N/A	F		1	21	-	786	2084	764	102.9%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	439	2034	746	58.9%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	860	2175:2175	517+421	91.7 : 91.7%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	5	1995	266	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	59	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	877	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	15	-	167	1993	531	31.1%
8/2	Internal 1 Right	U	2	N/A	E		1	15	-	373	2137	570	65.5%
8/3	Internal 1 Right	U	2	N/A	E		1	15	-	387	2127	567	68.2%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1247	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	742	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	53	1932	902	5.9%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	809	2066	964	80.4%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	795	2066	964	80.2%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	186	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1323	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	413	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	941	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1323	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	29	-	447	1800:1800	898+18	48.8 : 48.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>332</b>	<b>0</b>	<b>0</b>	<b>23.8</b>	<b>71.3</b>	<b>0.0</b>	<b>95.1</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>332</b>	<b>0</b>	<b>0</b>	<b>23.8</b>	<b>71.3</b>	<b>0.0</b>	<b>95.1</b>	-	-	-	-
1/1	641	641	-	-	-	1.3	0.6	-	1.9	10.5	6.2	0.6	6.8
1/2+1/3	1163	1163	-	-	-	2.2	1.0	-	3.2	9.9	7.7	1.0	8.7
2/2+2/1	166	166	332	0	0	0.0	0.2	-	0.2	4.0	0.1	0.2	0.3
3/2+3/1	1301	1267	-	-	-	7.3	36.7	-	44.0	121.9	13.8	36.7	50.5
3/3	786	764	-	-	-	4.7	20.5	-	25.2	115.3	13.5	20.5	34.0
4/1	439	439	-	-	-	1.9	0.7	-	2.6	21.2	5.9	0.7	6.6
4/2+4/3	860	860	-	-	-	4.0	4.9	-	8.9	37.3	10.2	4.9	15.1
5/1	5	5	-	-	-	0.0	0.0	-	0.0	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	59	59	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	877	877	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.5	0.2	-	0.7	15.0	1.9	0.2	2.1
8/2	373	373	-	-	-	0.4	0.9	-	1.3	12.9	4.9	0.9	5.8
8/3	387	387	-	-	-	0.5	1.1	-	1.5	14.1	4.9	1.1	6.0
9/1	1213	1213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	53	53	-	-	-	0.0	0.0	-	0.0	3.0	0.0	0.0	0.1
10/2	775	775	-	-	-	0.1	2.0	-	2.1	9.8	0.2	2.0	2.3
10/3	773	773	-	-	-	0.1	2.0	-	2.0	9.5	0.1	2.0	2.1
11/1	185	185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1323	1323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	413	413	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	941	941	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0



### Full Input Data And Results

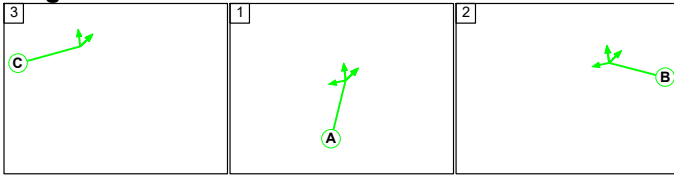
13/2	1323	1323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	447	447	-	-	-	0.7	0.5	-	1.2	9.8	5.2	0.5	5.7
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-1.9		Total Delay for Signalled Lanes (pcuHr)		15.85		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		31.9		Total Delay for Signalled Lanes (pcuHr)		8.62		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-16.1		Total Delay for Signalled Lanes (pcuHr)		70.45		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-16.1		Total Delay Over All Lanes(pcuHr)		95.10					

Full Input Data And Results

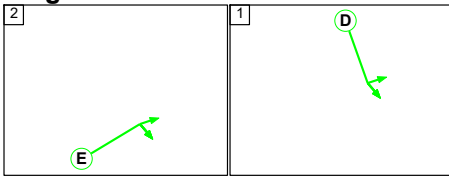
Scenario 19: '2028 Reference Case 3-4PM' (FG24: '28RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

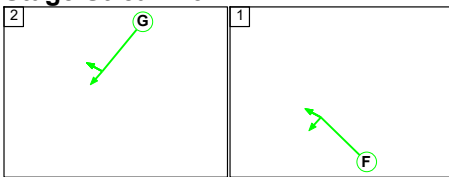
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

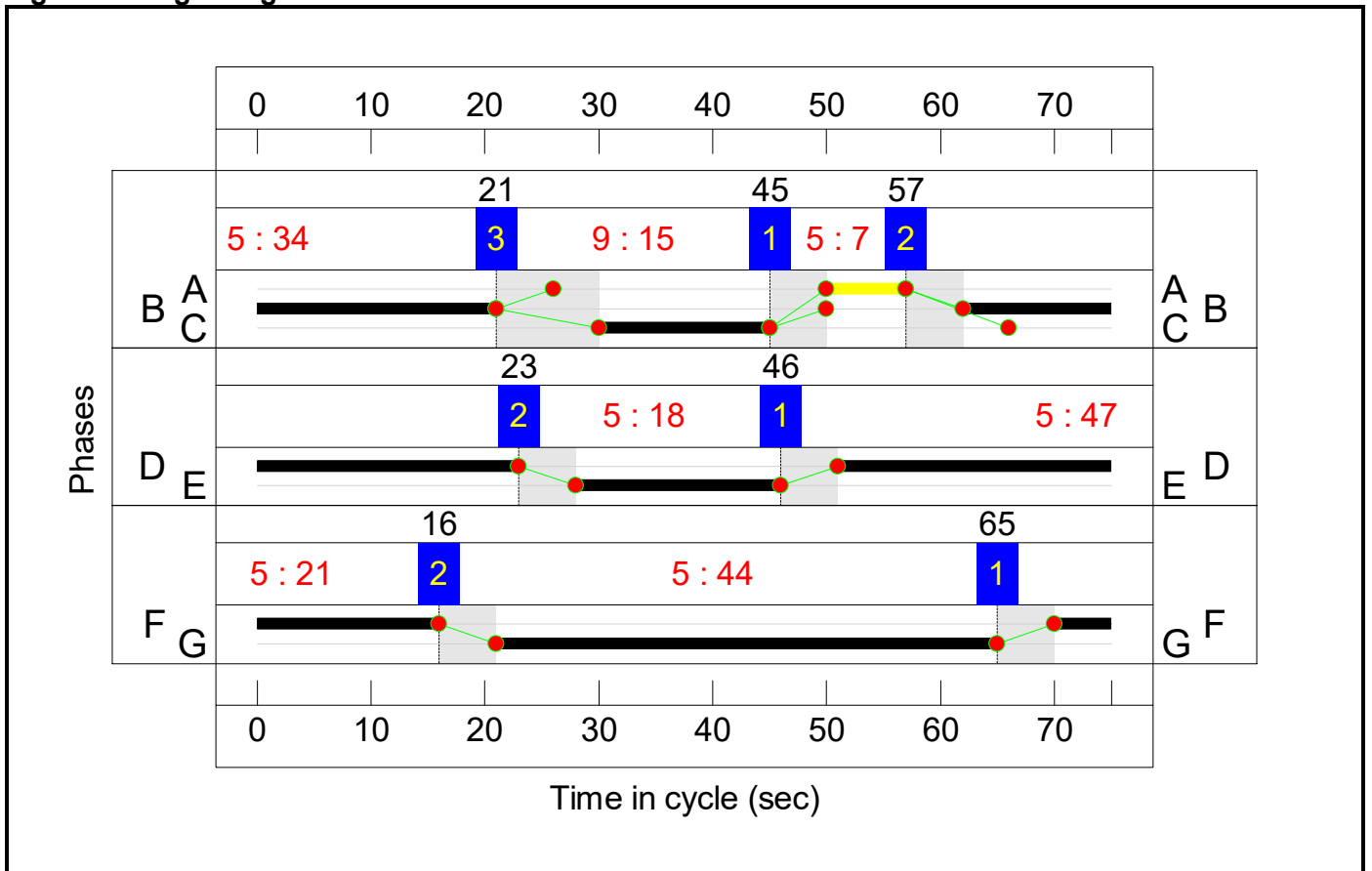
Stage Stream: 2

Stage	2	1
Duration	18	47
Change Point	23	46

Stage Stream: 3

Stage	2	1
Duration	44	21
Change Point	16	65

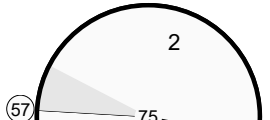
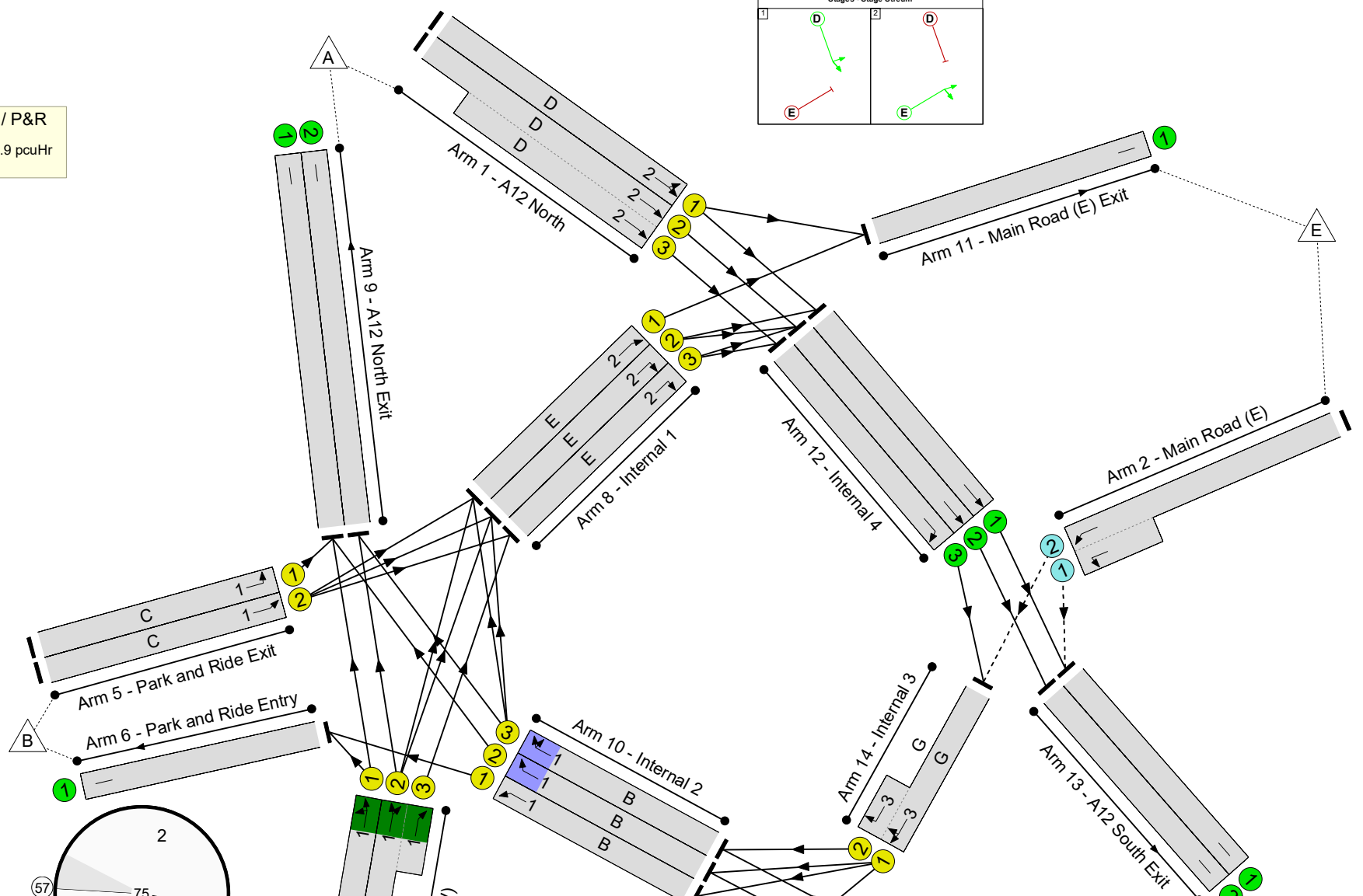
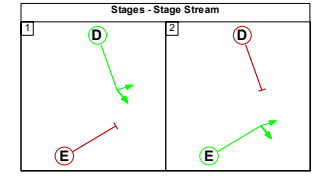
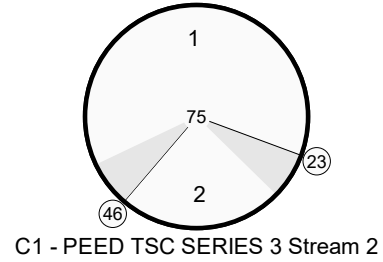
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -36.3 %  
 Total Traffic Delay: 225.9 pcuHr



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	122.7%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	122.7%
1/1	A12 North Left Ahead	U	2	N/A	D		1	47	-	582	1963	1256	46.3%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	47	-	1057	2105:2115	1116+665	59.3 : 59.4%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	317	950:1845	285+201	65.2 : 65.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	21	-	1376	2070:1910	607+560	122.7 : 112.6%
3/3	A12 South Ahead	U	3	N/A	F		1	21	-	728	2084	611	119.1%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	373	2035	597	62.5%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	695	2175:2175	434+392	84.2 : 84.2%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	5	1995	426	1.2%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	12	2125	453	2.6%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1199	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	18	-	189	1993	505	33.7%
8/2	Internal 1 Right	U	2	N/A	E		1	18	-	298	2137	541	55.0%
8/3	Internal 1 Right	U	2	N/A	E		1	18	-	337	2127	539	62.5%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1131	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	2	1932	902	0.2%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	753	2066	964	63.8%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	732	2066	964	63.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1147	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1147	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	44	-	582	1800:1800	1080+7	53.5 : 53.5%



Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>634</b>	<b>0</b>	<b>0</b>	<b>47.6</b>	<b>178.3</b>	<b>0.0</b>	<b>225.9</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>634</b>	<b>0</b>	<b>0</b>	<b>47.6</b>	<b>178.3</b>	<b>0.0</b>	<b>225.9</b>	-	-	-	-
1/1	582	582	-	-	-	1.1	0.4	-	1.5	9.6	6.1	0.4	6.6
1/2+1/3	1057	1057	-	-	-	2.0	0.7	-	2.7	9.2	7.2	0.7	7.9
2/2+2/1	317	317	634	0	0	0.2	0.9	-	1.1	12.3	1.5	0.9	2.4
3/2+3/1	1376	1167	-	-	-	18.4	107.5	-	125.9	329.3	24.9	107.5	132.3
3/3	728	611	-	-	-	10.0	61.3	-	71.3	352.5	17.6	61.3	78.9
4/1	373	373	-	-	-	2.4	0.8	-	3.2	30.9	6.6	0.8	7.5
4/2+4/3	695	695	-	-	-	4.4	2.6	-	7.0	36.2	9.6	2.6	12.2
5/1	5	5	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	12	12	-	-	-	0.1	0.0	-	0.1	27.7	0.2	0.0	0.2
6/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1128	1128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	170	170	-	-	-	1.1	0.3	-	1.3	27.7	3.0	0.3	3.3
8/2	298	298	-	-	-	2.8	0.6	-	3.4	41.5	4.0	0.6	4.6
8/3	337	337	-	-	-	3.0	0.8	-	3.8	41.0	4.3	0.8	5.2
9/1	993	993	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	3.4	0.0	0.0	0.0
10/2	615	615	-	-	-	0.3	0.9	-	1.2	6.8	0.6	0.9	1.5
10/3	615	615	-	-	-	0.3	0.9	-	1.2	6.7	0.6	0.9	1.4
11/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1147	1147	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

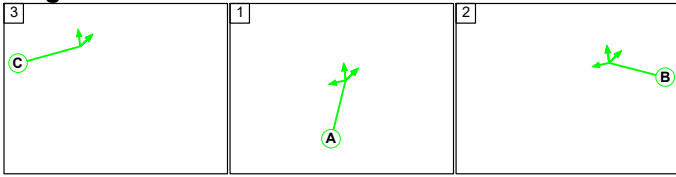
13/2	1147	1147	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																												
14/1+14/2	582	582	-	-	-	1.6	0.6	-	2.2	13.5	7.3	0.6	7.9																												
<table border="0"> <tr> <td>C1 - PEED TSC SERIES 3</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>6.9</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>12.65</td> <td>Cycle Time (s):</td> <td>75</td> </tr> <tr> <td>C1 - PEED TSC SERIES 3</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>43.9</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>12.82</td> <td>Cycle Time (s):</td> <td>75</td> </tr> <tr> <td>C1 - PEED TSC SERIES 3</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>-36.3</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>199.32</td> <td>Cycle Time (s):</td> <td>75</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-36.3</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>225.88</td> <td></td> <td></td> </tr> </table>														C1 - PEED TSC SERIES 3	Stream: 1 PRC for Signalled Lanes (%)	6.9	Total Delay for Signalled Lanes (pcuHr):	12.65	Cycle Time (s):	75	C1 - PEED TSC SERIES 3	Stream: 2 PRC for Signalled Lanes (%)	43.9	Total Delay for Signalled Lanes (pcuHr):	12.82	Cycle Time (s):	75	C1 - PEED TSC SERIES 3	Stream: 3 PRC for Signalled Lanes (%)	-36.3	Total Delay for Signalled Lanes (pcuHr):	199.32	Cycle Time (s):	75		PRC Over All Lanes (%)	-36.3	Total Delay Over All Lanes(pcuHr):	225.88		
C1 - PEED TSC SERIES 3	Stream: 1 PRC for Signalled Lanes (%)	6.9	Total Delay for Signalled Lanes (pcuHr):	12.65	Cycle Time (s):	75																																			
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	PRC Over All Lanes (%)	-36.3	Total Delay Over All Lanes(pcuHr):	225.88																																					

Full Input Data And Results

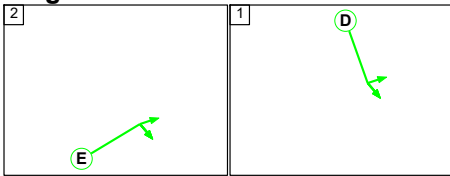
Scenario 20: '2028 Reference Case 5-6PM' (FG25: '28RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

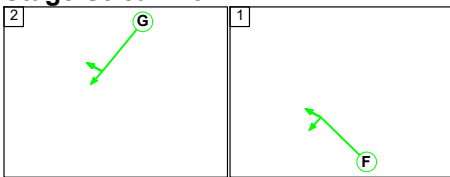
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

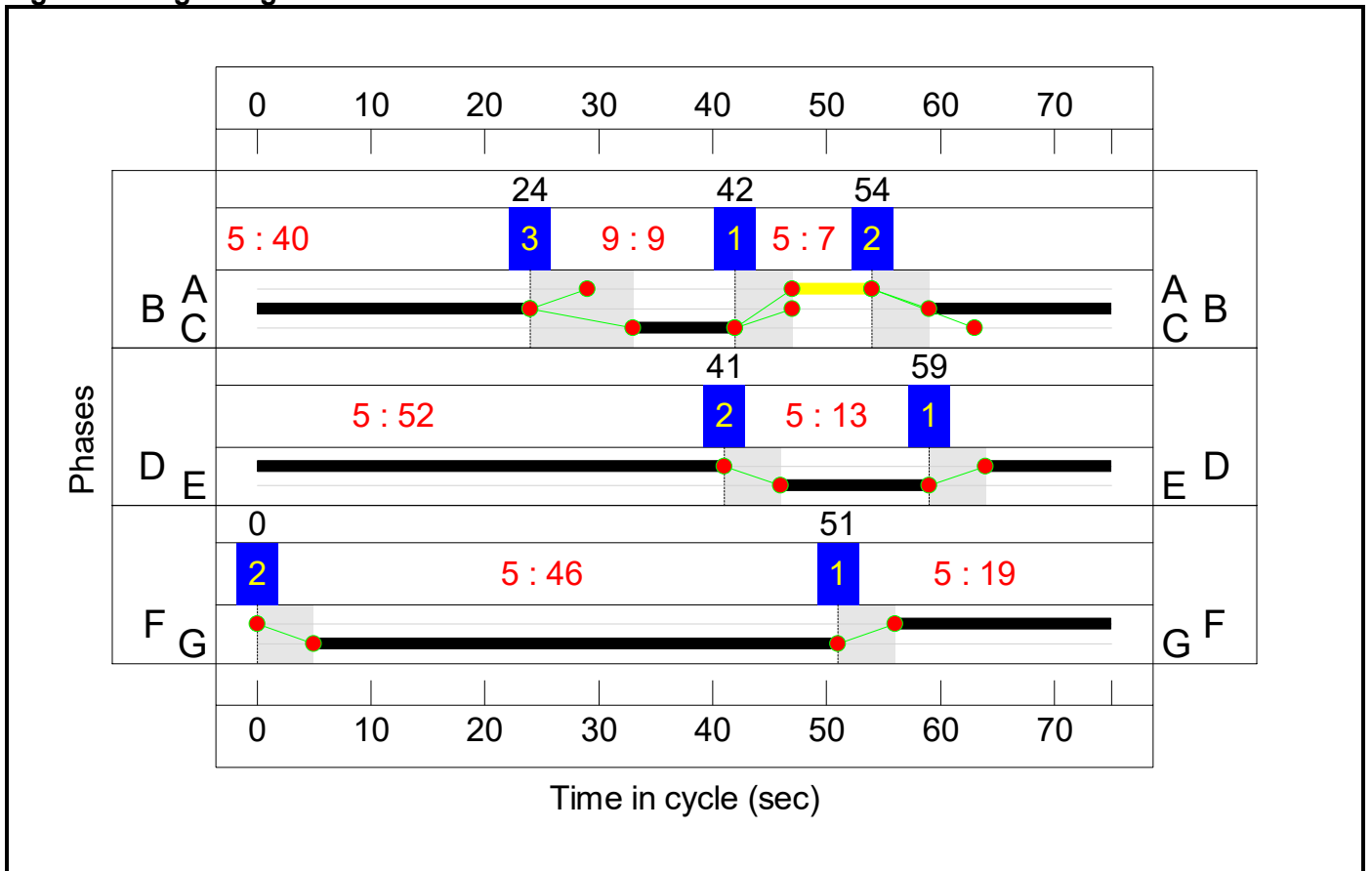
Stage Stream: 2

Stage	2	1
Duration	13	52
Change Point	41	59

Stage Stream: 3

Stage	2	1
Duration	46	19
Change Point	0	51

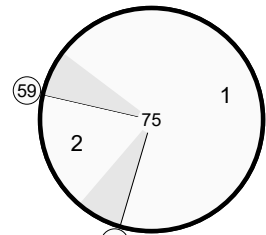
Signal Timings Diagram



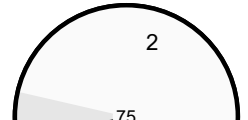
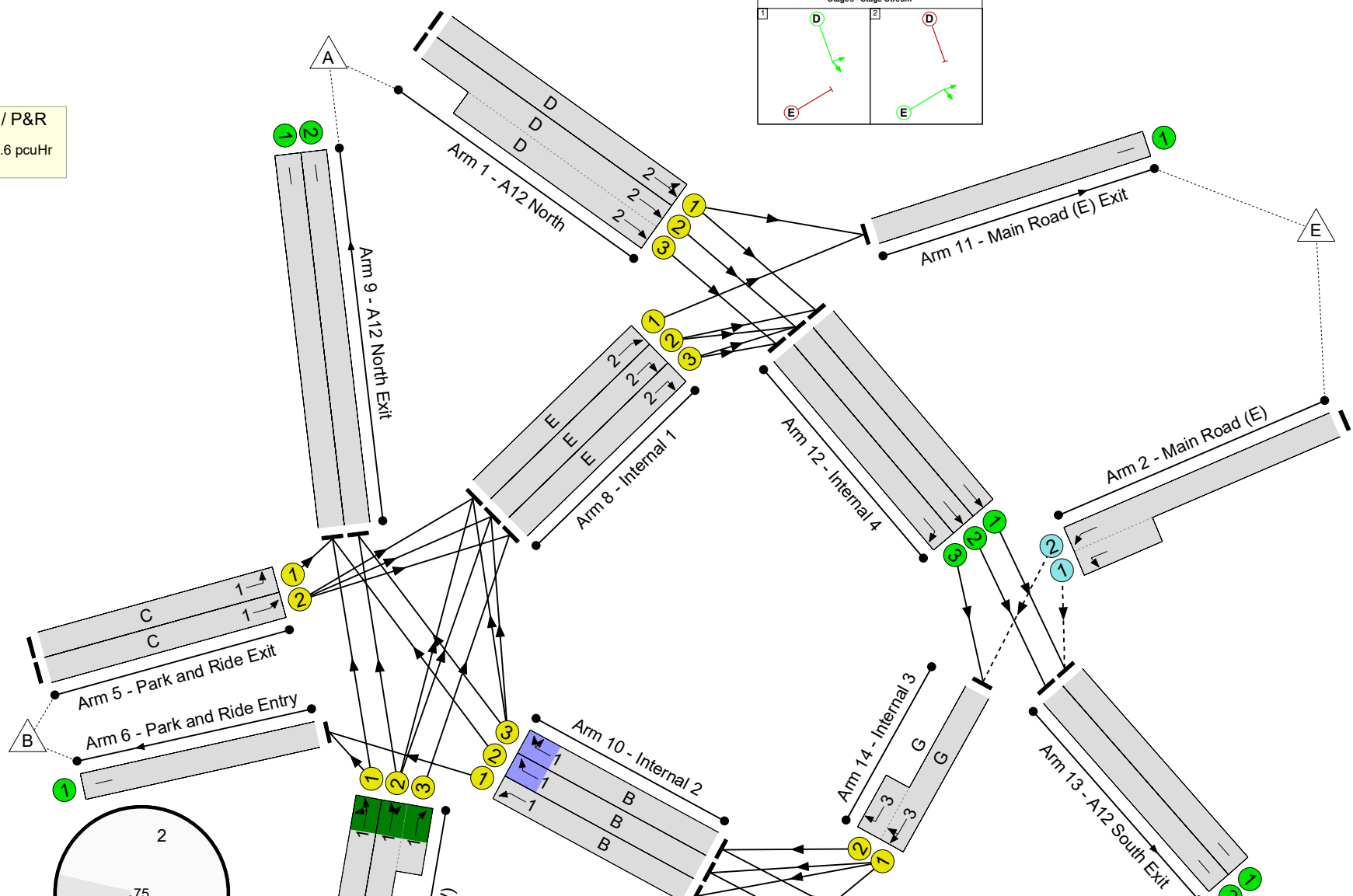
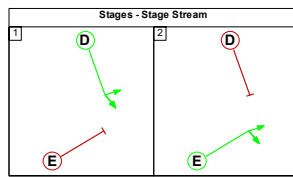
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -47.7 %  
 Total Traffic Delay: 296.6 pcuHr



C1 - PEED T (41) SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	133.0%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	133.0%
1/1	A12 North Left Ahead	U	2	N/A	D		1	52	-	579	1964	1388	41.7%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	52	-	1027	2105:2115	1205+711	53.6 : 53.6%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	437	950:1845	310+164	92.2 : 92.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	19	-	1374	2070:1910	552+509	133.0 : 125.7%
3/3	A12 South Ahead	U	3	N/A	F		1	19	-	717	2084	556	129.0%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	302	2034	597	50.6%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	551	2175:2175	432+395	66.6 : 66.6%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	21	1995	266	7.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	24	2125	283	8.5%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1292	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	238	1993	372	55.4%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	180	2137	399	45.0%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	274	2127	397	69.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1060	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%



### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	739	2066	1129	49.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	719	2066	1129	49.4%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	812	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	46	-	667	1800:1800	1128+3	59.0 : 59.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>874</b>	<b>0</b>	<b>0</b>	<b>44.3</b>	<b>252.3</b>	<b>0.0</b>	<b>296.6</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>874</b>	<b>0</b>	<b>0</b>	<b>44.3</b>	<b>252.3</b>	<b>0.0</b>	<b>296.6</b>	-	-	-	-
1/1	579	579	-	-	-	0.7	0.4	-	1.1	6.8	5.0	0.4	5.3
1/2+1/3	1027	1027	-	-	-	1.3	0.6	-	1.8	6.4	5.6	0.6	6.1
2/2+2/1	437	437	874	0	0	0.4	4.7	-	5.1	41.9	4.2	4.7	8.9
3/2+3/1	1374	1061	-	-	-	20.4	158.5	-	178.9	468.7	24.1	158.5	182.6
3/3	717	556	-	-	-	12.5	82.8	-	95.3	478.6	21.1	82.8	103.9
4/1	302	302	-	-	-	1.8	0.5	-	2.4	28.1	5.2	0.5	5.7
4/2+4/3	551	551	-	-	-	3.3	1.0	-	4.3	28.0	5.9	1.0	6.9
5/1	21	21	-	-	-	0.2	0.0	-	0.2	35.9	0.4	0.0	0.4
5/2	24	24	-	-	-	0.2	0.0	-	0.2	35.5	0.4	0.0	0.5
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1163	1163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	206	206	-	-	-	1.6	0.6	-	2.2	38.9	4.1	0.6	4.7
8/2	180	180	-	-	-	0.3	0.4	-	0.7	14.3	3.3	0.4	3.7
8/3	274	274	-	-	-	0.6	1.1	-	1.6	21.7	5.3	1.1	6.4
9/1	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	473	473	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	7	7	-	-	-	0.0	0.0	-	0.0	4.8	0.0	0.0	0.0
10/2	557	557	-	-	-	0.0	0.5	-	0.5	3.2	0.1	0.5	0.5
10/3	558	558	-	-	-	0.0	0.5	-	0.5	3.2	0.0	0.5	0.5
11/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1010	1010	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	812	812	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

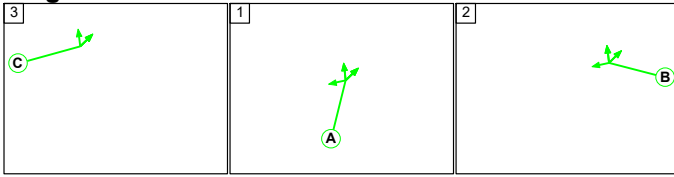
13/2	1010	1010	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	667	667	-	-	-	1.0	0.7	-	1.7	9.2	7.3	0.7	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		35.1		Total Delay for Signalled Lanes (pcuHr)		8.10		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		30.4		Total Delay for Signalled Lanes (pcuHr)		7.51		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-47.7		Total Delay for Signalled Lanes (pcuHr)		275.92		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-47.7		Total Delay Over All Lanes(pcuHr)		296.62					

Full Input Data And Results

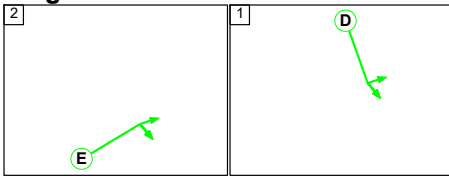
Scenario 21: '2028 Peak Construction 6-7AM' (FG16: '28PC\_6-7AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

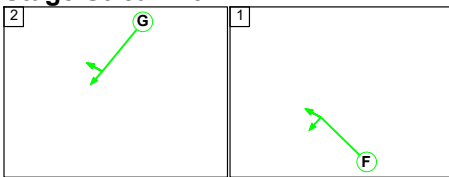
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

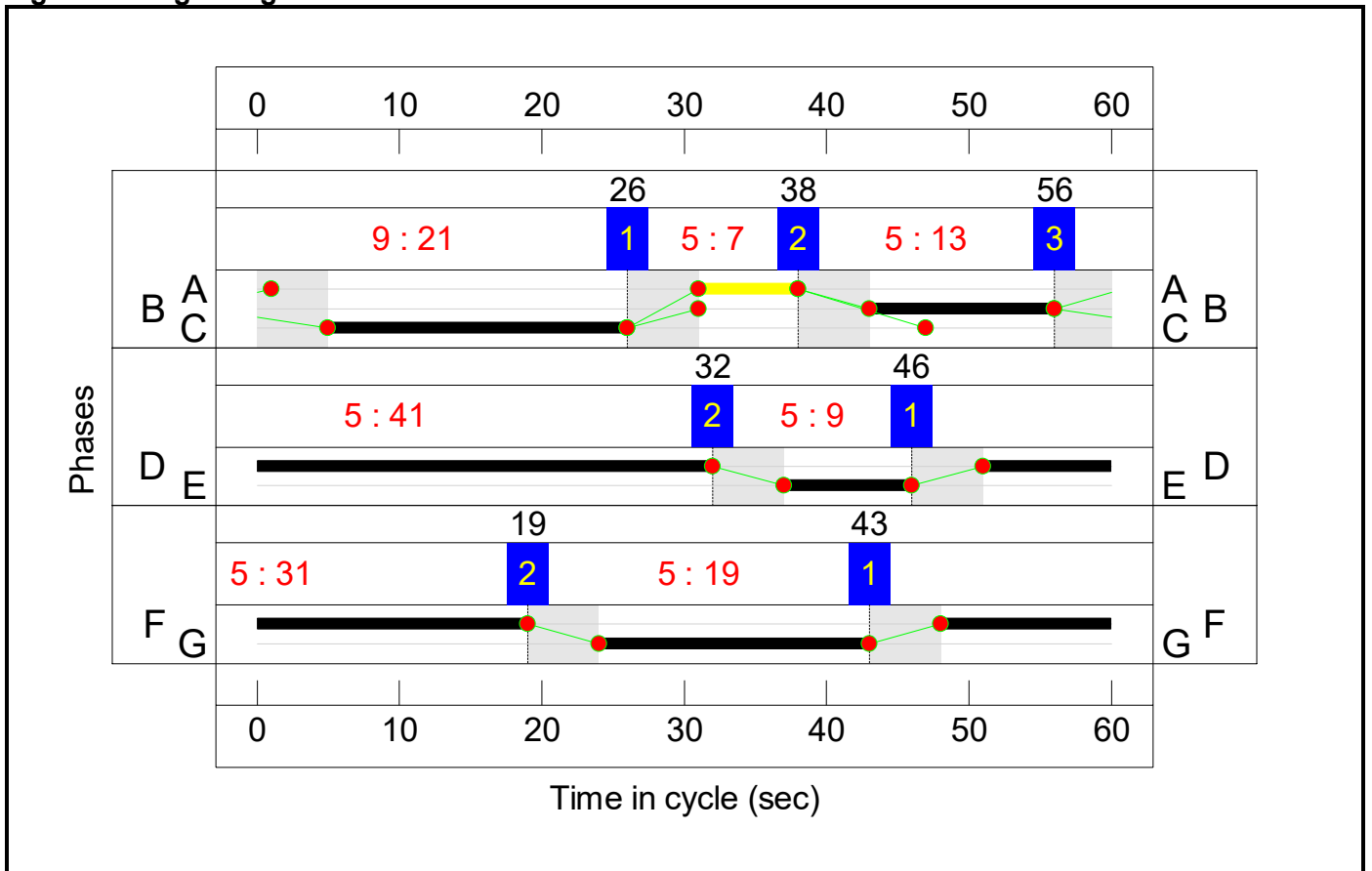
Stage Stream: 2

Stage	2	1
Duration	9	41
Change Point	32	46

Stage Stream: 3

Stage	2	1
Duration	19	31
Change Point	19	43

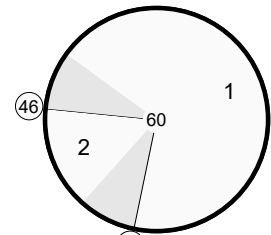
Signal Timings Diagram



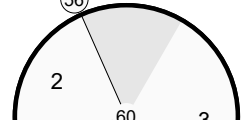
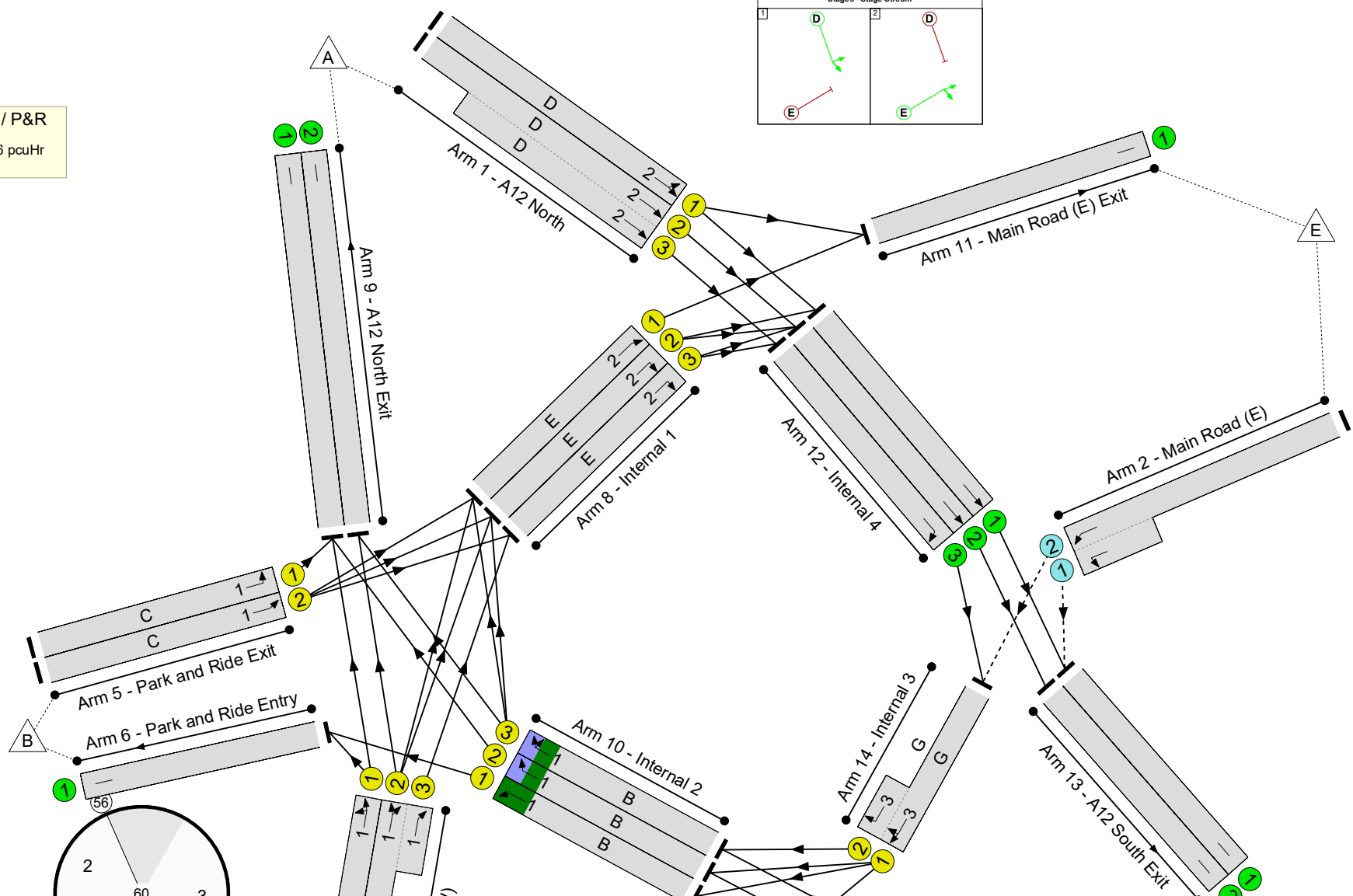
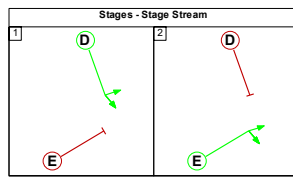
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 18.0 %  
 Total Traffic Delay: 12.6 pcuHr



C1 - PEED TS32SERIES 3 Stream 2



## Full Input Data And Results



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>76.3%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>76.3%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	303	1964	1375	22.0%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	582	2105:2115	1321+475	32.4 : 32.4%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	42	950:1845	107+641	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	526	2070:1909	1066+413	35.6 : 35.6%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	333	2084	1111	30.0%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	163	2034	271	60.1%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	351	2175:2175	282+178	76.3 : 76.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	0	1995	732	0.0%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	9	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	45	1993	332	13.5%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	93	2137	356	26.1%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	136	2127	354	38.4%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	544	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	8	1932	966	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	382	2066	1033	37.0%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	336	2066	1033	32.5%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	611	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	611	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	160	1800:1800	600+11	26.2 : 26.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>84</b>	<b>0</b>	<b>0</b>	<b>8.1</b>	<b>4.5</b>	<b>0.0</b>	<b>12.6</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>84</b>	<b>0</b>	<b>0</b>	<b>8.1</b>	<b>4.5</b>	<b>0.0</b>	<b>12.6</b>	-	-	-	-
1/1	303	303	-	-	-	0.3	0.1	-	0.4	4.9	1.8	0.1	1.9
1/2+1/3	582	582	-	-	-	0.5	0.2	-	0.8	4.8	2.6	0.2	2.9
2/2+2/1	42	42	84	0	0	0.0	0.0	-	0.0	2.6	0.0	0.0	0.0
3/2+3/1	526	526	-	-	-	1.1	0.3	-	1.4	9.6	3.6	0.3	3.9
3/3	333	333	-	-	-	0.7	0.2	-	0.9	10.1	3.1	0.2	3.3
4/1	163	163	-	-	-	1.1	0.7	-	1.9	40.9	2.5	0.7	3.3
4/2+4/3	351	351	-	-	-	2.4	1.6	-	4.0	40.7	3.4	1.6	5.0
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	293	293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	45	45	-	-	-	0.1	0.1	-	0.2	17.1	0.3	0.1	0.3
8/2	93	93	-	-	-	0.1	0.2	-	0.2	9.2	0.2	0.2	0.4
8/3	136	136	-	-	-	0.0	0.3	-	0.3	9.3	0.6	0.3	0.9
9/1	544	544	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	7.5	0.0	0.0	0.0
10/2	382	382	-	-	-	0.6	0.3	-	0.8	7.9	1.4	0.3	1.6
10/3	336	336	-	-	-	0.5	0.2	-	0.7	7.7	1.2	0.2	1.4
11/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	374	374	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

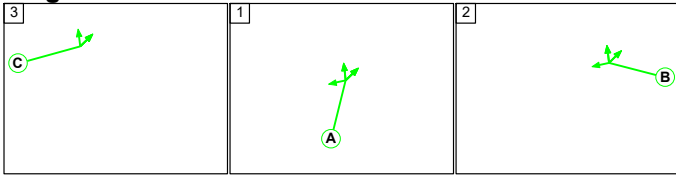
13/2	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	160	160	-	-	-	0.6	0.2	-	0.8	17.8	2.0	0.2	2.2
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		18.0	Total Delay for Signalled Lanes (pcuHr)		7.41	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		134.6	Total Delay for Signalled Lanes (pcuHr)		1.98	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		153.0	Total Delay for Signalled Lanes (pcuHr)		3.13	Cycle Time (s)		60			
		PRC Over All Lanes (%)		18.0	Total Delay Over All Lanes(pcuHr)		12.56						

Full Input Data And Results

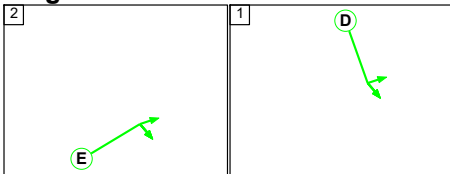
Scenario 22: '2028 Peak Construction 7-8AM' (FG17: '28PC\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

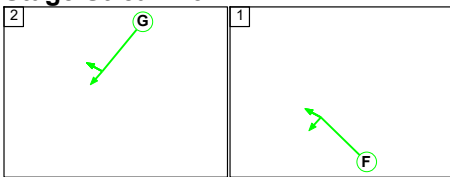
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

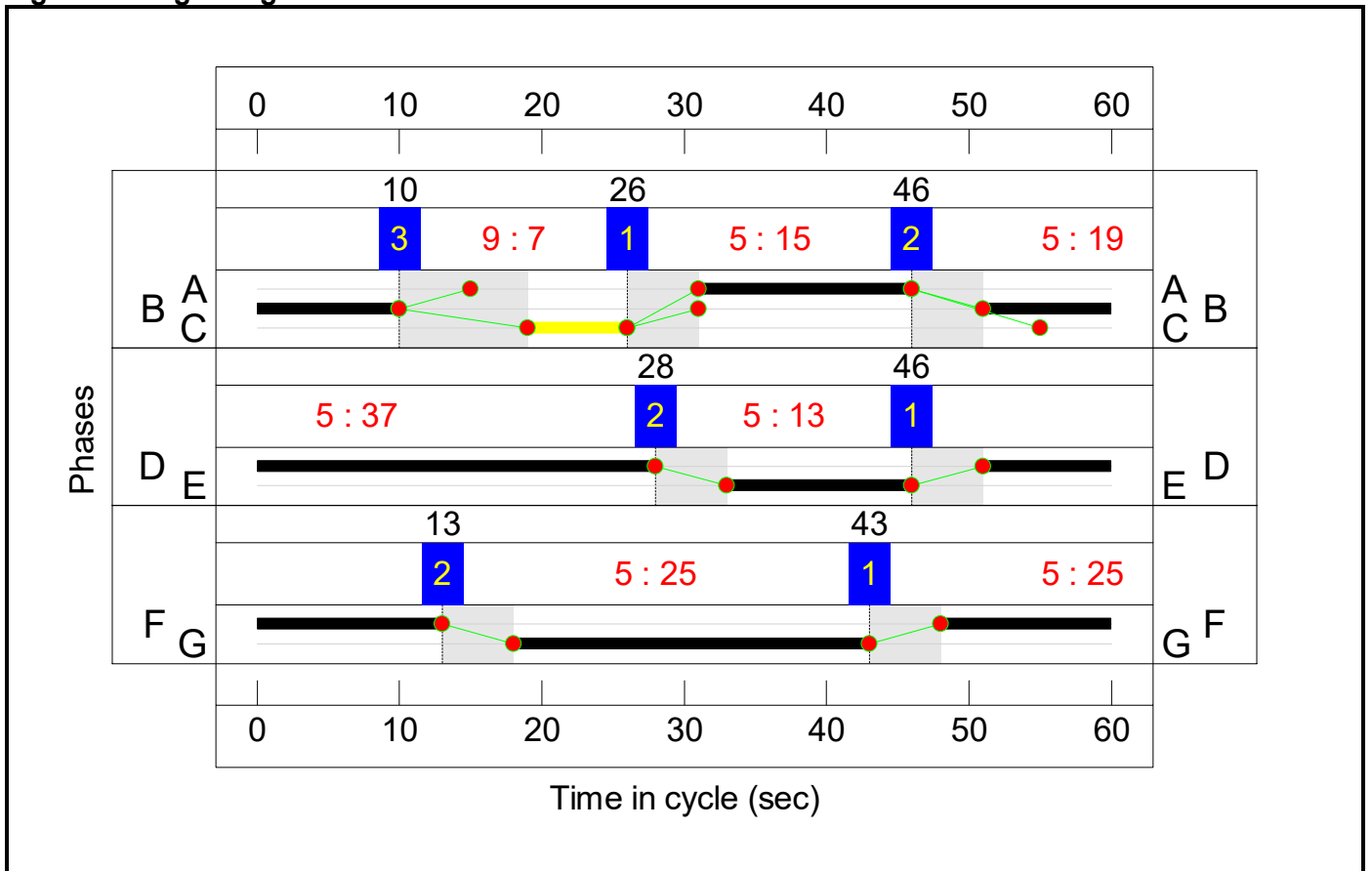
Stage Stream: 2

Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43

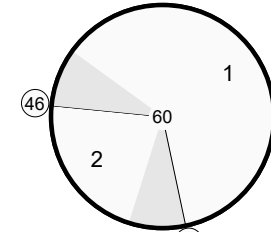
**Signal Timings Diagram**



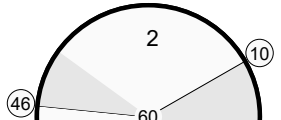
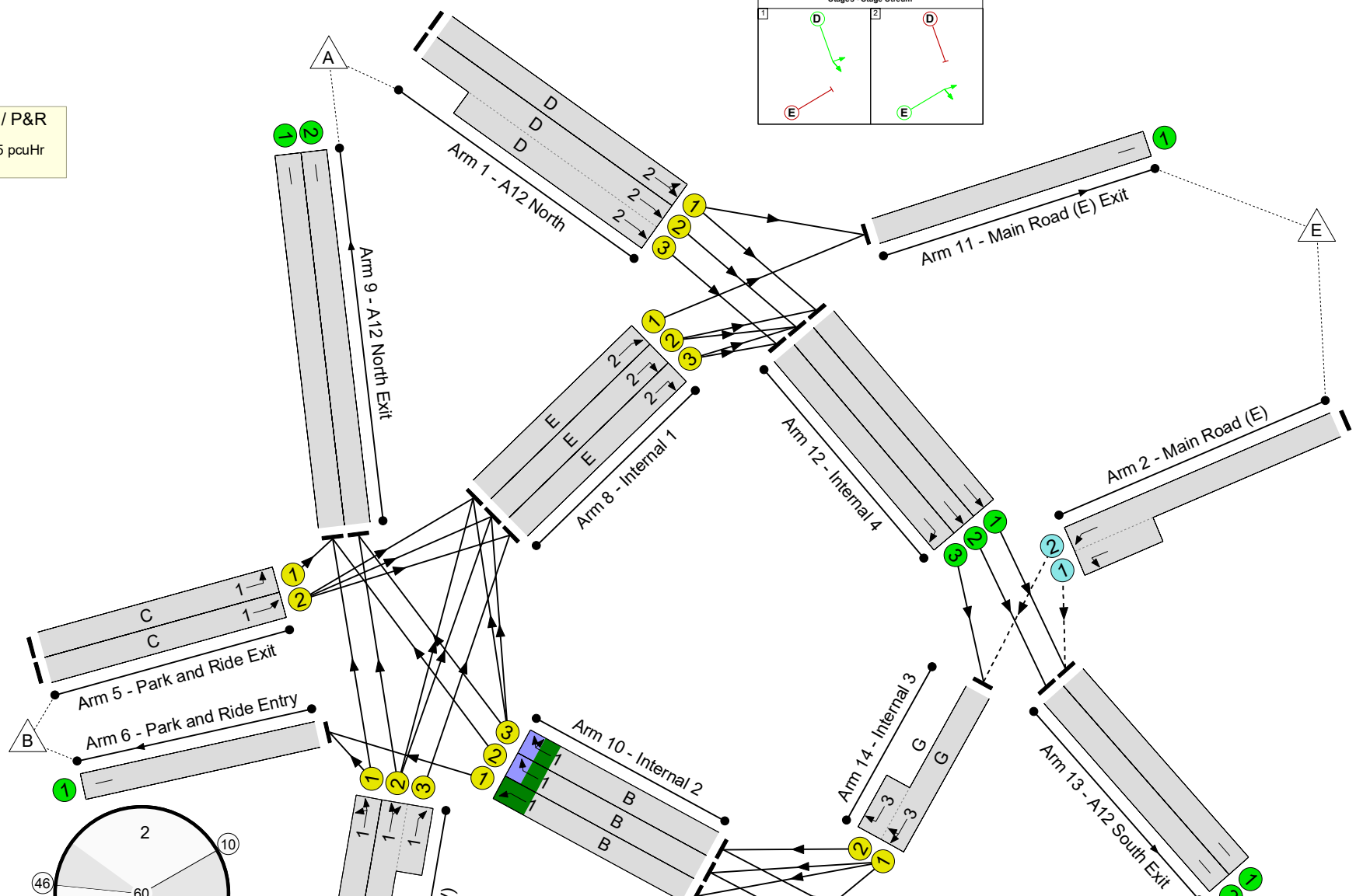
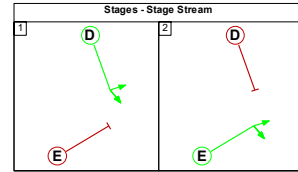
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 1.0 %  
 Total Traffic Delay: 34.5 pcuHr



C1 - PEED TSC SE 28 ES 3 Stream 2





## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.1%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.1%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	525	1961	1242	42.3%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	1001	2105:2115	1182+641	54.9 : 54.9%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	98	950:1845	114+582	14.1 : 14.1%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1108	2070:1908	897+421	84.1 : 84.1%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	710	2084	903	78.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	450	2032	542	83.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	690	2175:2175	446+328	89.1 : 89.1%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	664	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	105	1993	465	22.6%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	271	2137	499	54.3%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	293	2127	496	59.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1195	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	747	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	44	1932	1095	4.0%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	755	2066	1171	64.5%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	723	2066	1171	61.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	352	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	368	1800:1800	771+28	46.0 : 46.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>196</b>	<b>0</b>	<b>0</b>	<b>19.3</b>	<b>15.2</b>	<b>0.0</b>	<b>34.5</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>196</b>	<b>0</b>	<b>0</b>	<b>19.3</b>	<b>15.2</b>	<b>0.0</b>	<b>34.5</b>	-	-	-	-
1/1	525	525	-	-	-	0.8	0.4	-	1.2	8.0	4.4	0.4	4.7
1/2+1/3	1001	1001	-	-	-	1.5	0.6	-	2.1	7.7	5.6	0.6	6.2
2/2+2/1	98	98	196	0	0	0.0	0.1	-	0.1	3.1	0.0	0.1	0.1
3/2+3/1	1108	1108	-	-	-	4.3	2.6	-	6.9	22.5	11.1	2.6	13.7
3/3	710	710	-	-	-	2.9	1.8	-	4.7	23.8	10.1	1.8	11.9
4/1	450	450	-	-	-	2.6	2.3	-	4.9	39.4	7.0	2.3	9.3
4/2+4/3	690	690	-	-	-	3.8	3.8	-	7.6	39.5	7.9	3.8	11.6
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	105	105	-	-	-	0.4	0.1	-	0.5	18.4	0.7	0.1	0.9
8/2	271	271	-	-	-	0.8	0.6	-	1.4	18.7	1.1	0.6	1.7
8/3	293	293	-	-	-	0.8	0.7	-	1.6	19.1	1.2	0.7	1.9
9/1	1195	1195	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	44	44	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	755	755	-	-	-	0.0	0.9	-	0.9	4.3	0.0	0.9	0.9
10/3	723	723	-	-	-	0.0	0.8	-	0.8	4.2	0.1	0.8	0.9
11/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

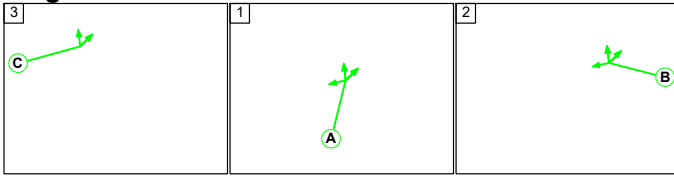
13/2	1078	1078	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	368	368	-	-	-	1.2	0.4	-	1.7	16.4	4.9	0.4	5.4
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		1.0		Total Delay for Signalled Lanes (pcuHr)		14.32		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		52.4		Total Delay for Signalled Lanes (pcuHr)		6.80		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		7.1		Total Delay for Signalled Lanes (pcuHr)		13.27		Cycle Time (s)		60	
		PRC Over All Lanes (%)		1.0		Total Delay Over All Lanes(pcuHr)		34.47					

Full Input Data And Results

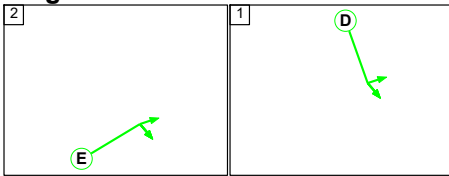
Scenario 23: '2028 Peak Construction 8-9AM' (FG18: '28PC\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

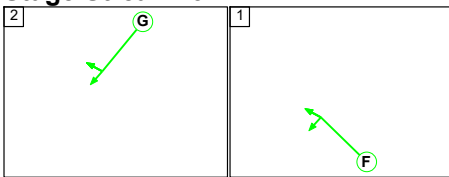
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

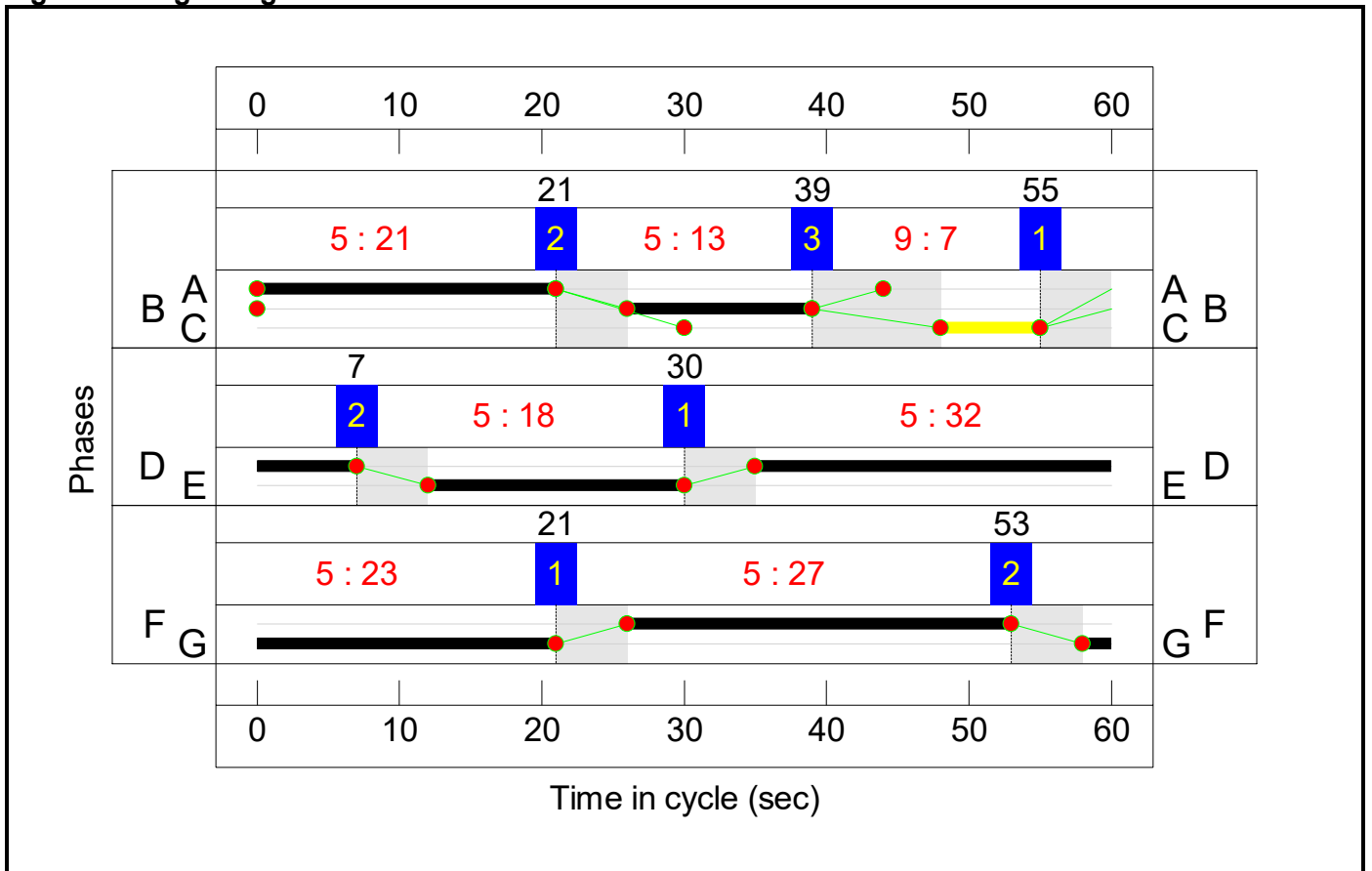
Stage Stream: 2

Stage	2	1
Duration	18	32
Change Point	7	30

Stage Stream: 3

Stage	2	1
Duration	23	27
Change Point	53	21

Signal Timings Diagram

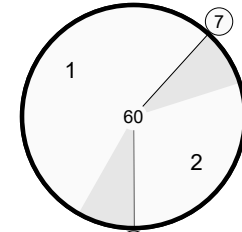


Full Input Data And Results  
**Network Layout Diagram**

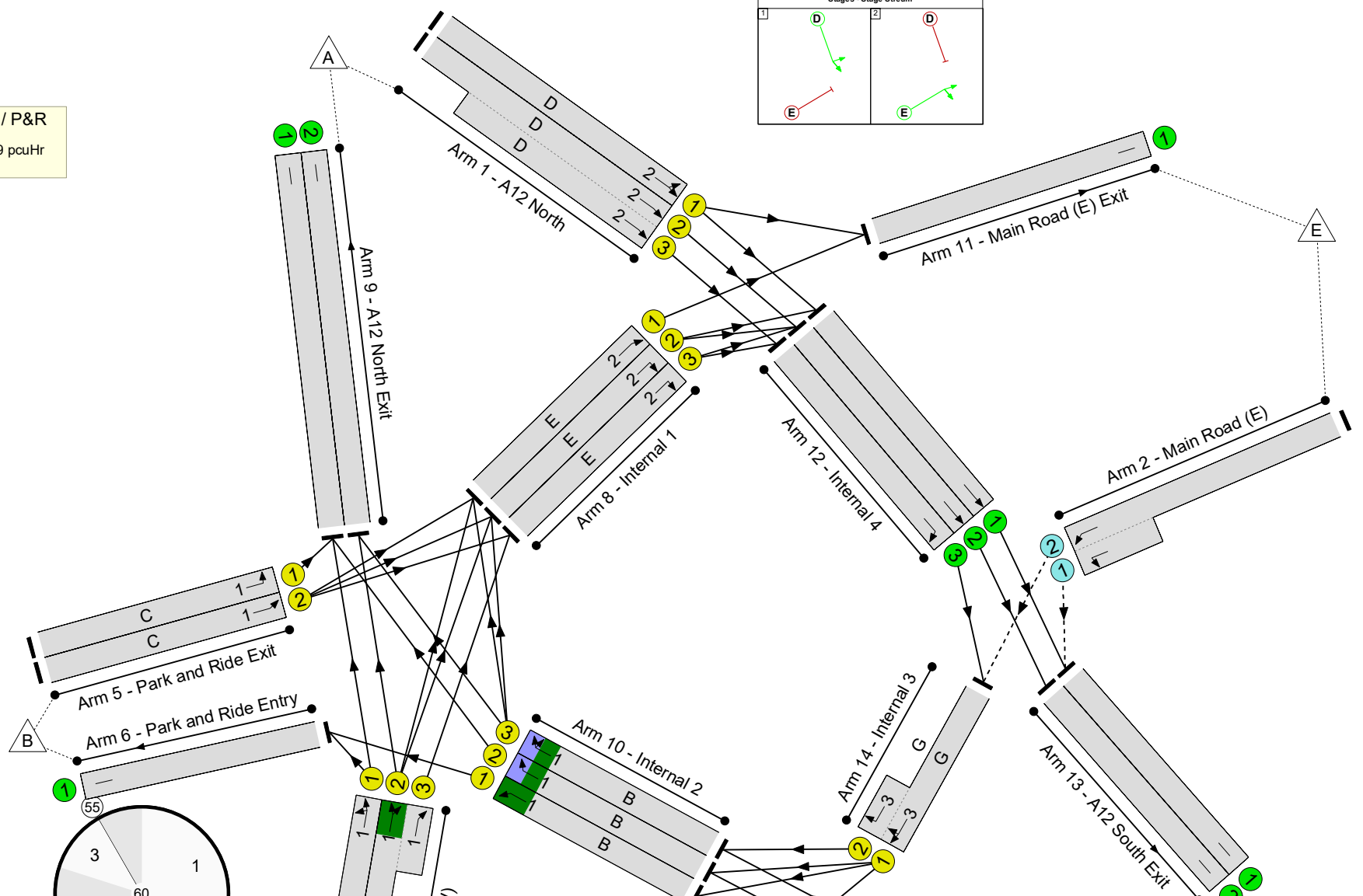
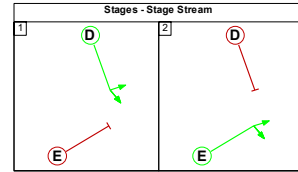


Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -4.6 %  
 Total Traffic Delay: 45.9 pcuHr



C1 - PEED TSC (30)RIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>94.2%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>94.2%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	32	-	649	1964	1080	60.1%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	32	-	1181	2105:2115	1067+593	71.1 : 71.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	169	950:1845	166+535	24.1 : 24.1%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	27	-	1301	2070:1908	966+563	85.1 : 85.1%
3/3	A12 South Ahead	U	3	N/A	F		1	27	-	816	2084	973	83.9%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	420	2034	746	56.3%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	877	2175:2175	521+410	94.2 : 94.2%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	5	1995	266	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	58	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	863	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	18	-	187	1993	631	29.6%
8/2	Internal 1 Right	U	2	N/A	E		1	18	-	371	2137	677	54.8%
8/3	Internal 1 Right	U	2	N/A	E		1	18	-	387	2127	674	57.5%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1256	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	52	1932	902	5.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	837	2066	964	86.8%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	828	2066	964	85.9%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1330	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1330	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	23	-	463	1800:1800	718+19	62.8 : 62.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>338</b>	<b>0</b>	<b>0</b>	<b>22.8</b>	<b>23.0</b>	<b>0.0</b>	<b>45.9</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>338</b>	<b>0</b>	<b>0</b>	<b>22.8</b>	<b>23.0</b>	<b>0.0</b>	<b>45.9</b>	-	-	-	-
1/1	649	649	-	-	-	1.6	0.7	-	2.4	13.2	7.2	0.7	8.0
1/2+1/3	1181	1181	-	-	-	2.9	1.2	-	4.1	12.6	8.9	1.2	10.1
2/2+2/1	169	169	338	0	0	0.0	0.2	-	0.2	4.1	0.2	0.2	0.4
3/2+3/1	1301	1301	-	-	-	4.7	2.8	-	7.5	20.8	12.1	2.8	14.9
3/3	816	816	-	-	-	3.2	2.5	-	5.7	25.2	11.8	2.5	14.3
4/1	420	420	-	-	-	1.8	0.6	-	2.4	20.7	5.5	0.6	6.1
4/2+4/3	877	877	-	-	-	4.2	6.5	-	10.7	43.8	10.8	6.5	17.3
5/1	5	5	-	-	-	0.0	0.0	-	0.0	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	58	58	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	863	863	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	187	187	-	-	-	0.5	0.2	-	0.7	13.4	2.3	0.2	2.5
8/2	371	371	-	-	-	0.4	0.6	-	1.0	9.7	4.9	0.6	5.5
8/3	387	387	-	-	-	0.4	0.7	-	1.0	9.7	4.9	0.7	5.5
9/1	1256	1256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	52	52	-	-	-	0.0	0.0	-	0.1	5.5	0.1	0.0	0.2
10/2	837	837	-	-	-	0.7	3.1	-	3.9	16.7	1.6	3.1	4.7
10/3	828	828	-	-	-	0.7	2.9	-	3.6	15.8	1.5	2.9	4.4
11/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	817	817	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1330	1330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

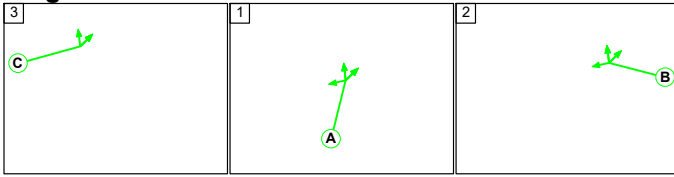
13/2	1330	1330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	463	463	-	-	-	1.5	0.8	-	2.3	18.2	6.9	0.8	7.7
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-4.6		Total Delay for Signalled Lanes (pcuHr)		20.85		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		26.5		Total Delay for Signalled Lanes (pcuHr)		9.24		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		5.8		Total Delay for Signalled Lanes (pcuHr)		15.57		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-4.6		Total Delay Over All Lanes(pcuHr)		45.85					

Full Input Data And Results

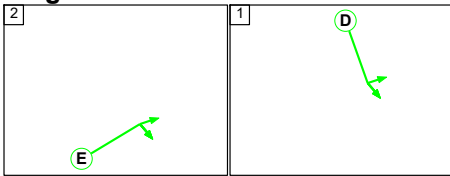
Scenario 24: '2028 Peak Construction 3-4PM' (FG19: '28PC\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

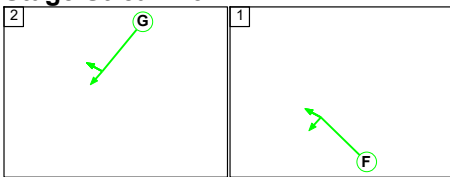
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	11	38
Change Point	21	37	53

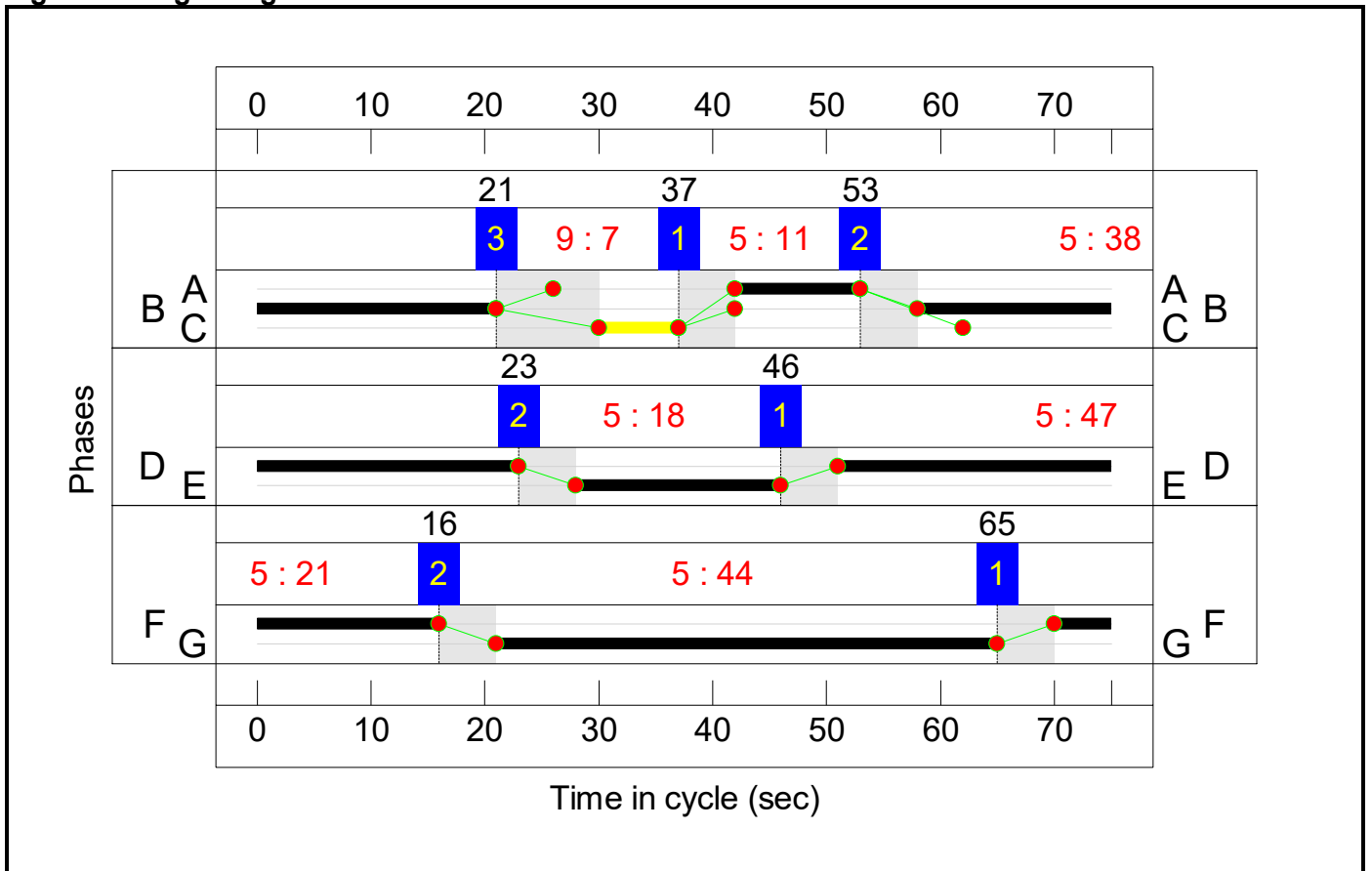
Stage Stream: 2

Stage	2	1
Duration	18	47
Change Point	23	46

Stage Stream: 3

Stage	2	1
Duration	44	21
Change Point	16	65

Signal Timings Diagram

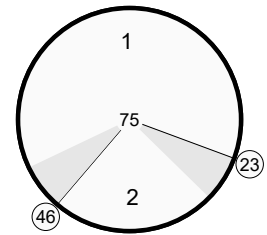




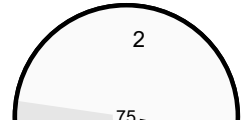
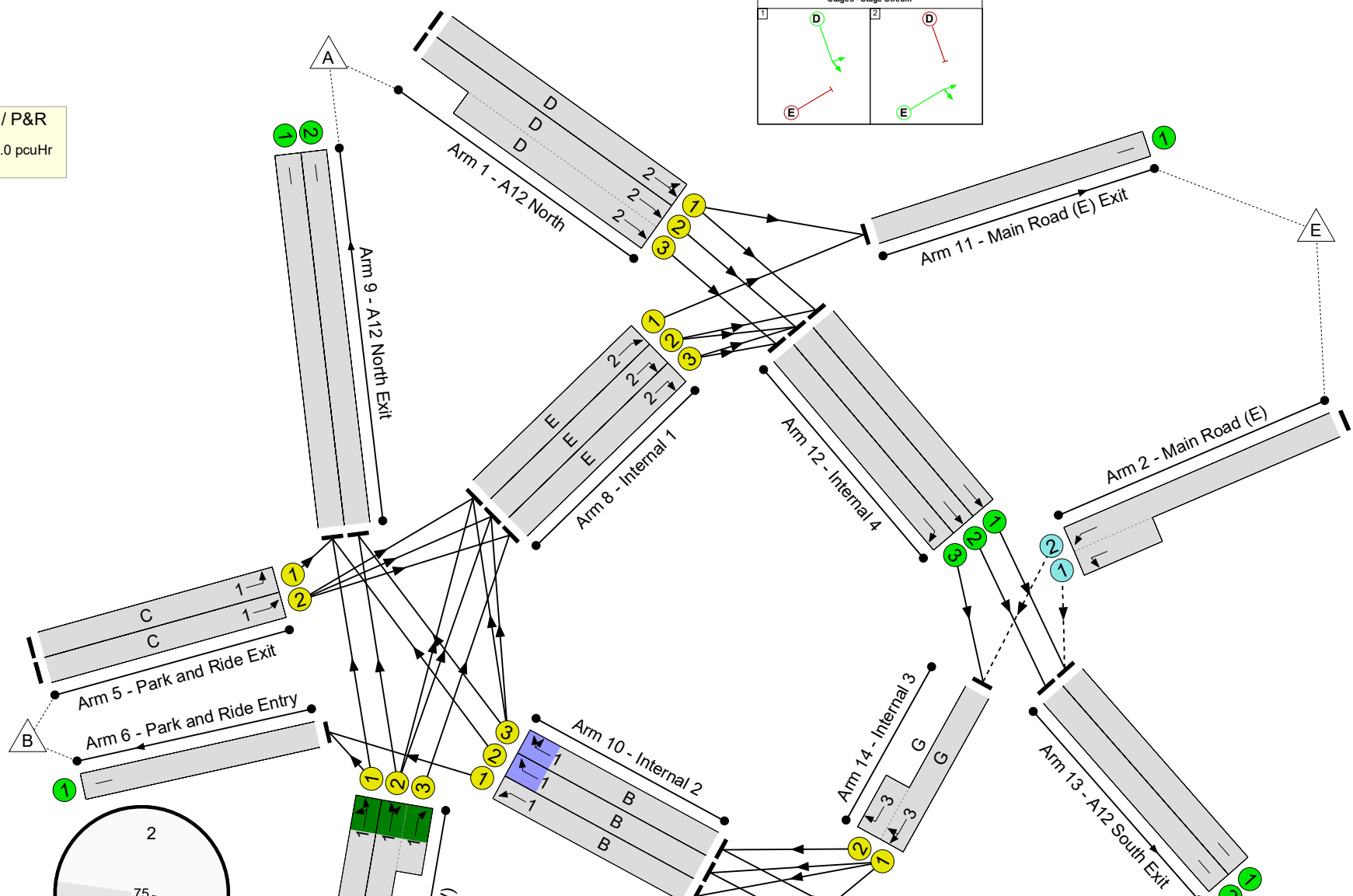
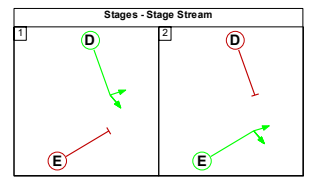
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -39.3 %  
 Total Traffic Delay: 236.0 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	125.3%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	125.3%
1/1	A12 North Left Ahead	U	2	N/A	D		1	47	-	603	1964	1257	48.0%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	47	-	1067	2105:2115	1120+643	60.5 : 60.5%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	324	950:1845	279+189	69.3 : 69.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	21	-	1386	2070:1910	607+560	125.3 : 111.6%
3/3	A12 South Ahead	U	3	N/A	F		1	21	-	751	2084	611	122.9%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	11	-	400	2035	705	56.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	11	-	656	2175:2175	496+444	69.8 : 69.8%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	4	1995	213	1.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	13	2125	227	5.7%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1192	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	18	-	220	1993	505	38.4%
8/2	Internal 1 Right	U	2	N/A	E		1	18	-	274	2137	541	50.6%
8/3	Internal 1 Right	U	2	N/A	E		1	18	-	317	2127	539	58.8%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1174	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	614	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	38	-	2	1932	1005	0.2%
10/2	Internal 2 Right	U	1	N/A	B		1	38	-	770	2066	1074	57.4%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	38	-	756	2066	1074	57.4%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1131	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	851	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1131	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	44	-	583	1800:1800	1080+9	53.5 : 53.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>648</b>	<b>0</b>	<b>0</b>	<b>43.6</b>	<b>192.4</b>	<b>0.0</b>	<b>236.0</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>648</b>	<b>0</b>	<b>0</b>	<b>43.6</b>	<b>192.4</b>	<b>0.0</b>	<b>236.0</b>	-	-	-	-
1/1	603	603	-	-	-	1.2	0.5	-	1.6	9.8	6.4	0.5	6.8
1/2+1/3	1067	1067	-	-	-	2.0	0.8	-	2.8	9.3	7.3	0.8	8.1
2/2+2/1	324	324	648	0	0	0.2	1.1	-	1.3	14.4	1.7	1.1	2.8
3/2+3/1	1386	1167	-	-	-	18.9	112.4	-	131.2	340.8	26.0	112.4	138.4
3/3	751	611	-	-	-	11.1	72.4	-	83.5	400.2	18.6	72.4	91.0
4/1	400	400	-	-	-	2.2	0.7	-	2.9	25.8	6.7	0.7	7.3
4/2+4/3	656	656	-	-	-	3.5	1.1	-	4.6	25.4	7.4	1.1	8.6
5/1	4	4	-	-	-	0.0	0.0	-	0.0	39.0	0.1	0.0	0.1
5/2	13	13	-	-	-	0.1	0.0	-	0.1	38.8	0.2	0.0	0.3
6/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1127	1127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	194	194	-	-	-	0.7	0.3	-	1.0	18.5	2.7	0.3	3.0
8/2	274	274	-	-	-	0.8	0.5	-	1.3	17.1	1.2	0.5	1.7
8/3	317	317	-	-	-	0.9	0.7	-	1.6	18.3	1.3	0.7	2.0
9/1	1020	1020	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	3.1	0.0	0.0	0.0
10/2	616	616	-	-	-	0.3	0.7	-	0.9	5.4	0.6	0.7	1.3
10/3	616	616	-	-	-	0.2	0.7	-	0.9	5.4	0.6	0.7	1.2
11/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1131	1131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	851	851	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

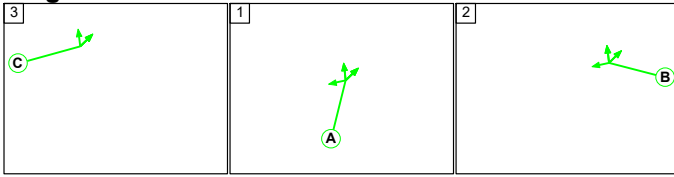
13/2	1131	1131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	583	583	-	-	-	1.6	0.6	-	2.1	13.3	7.3	0.6	7.9
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		29.0		Total Delay for Signalled Lanes (pcuHr)		9.54		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		48.7		Total Delay for Signalled Lanes (pcuHr)		8.30		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-39.3		Total Delay for Signalled Lanes (pcuHr)		216.85		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-39.3		Total Delay Over All Lanes(pcuHr)		235.98					

Full Input Data And Results

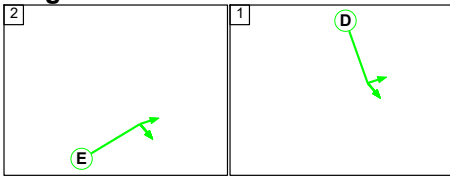
Scenario 25: '2028 Peak Construction 5-6PM' (FG20: '28PC\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

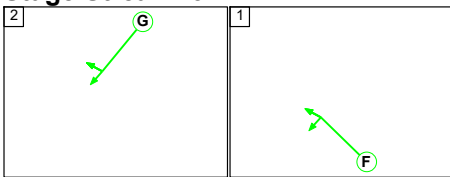
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

Stage Stream: 2

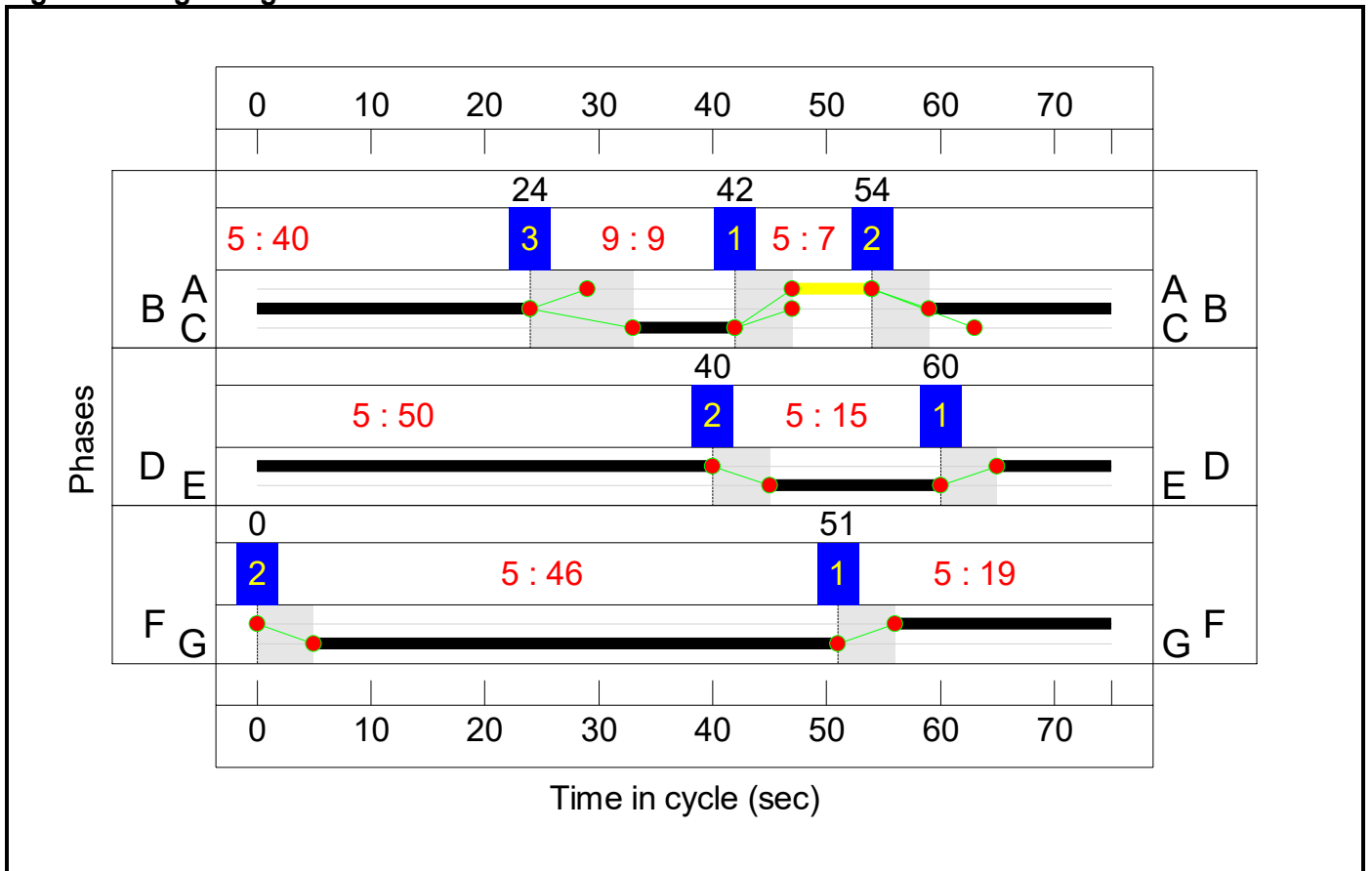
Stage	2	1
Duration	15	50
Change Point	40	60

Stage Stream: 3

Stage	2	1
Duration	46	19
Change Point	0	51



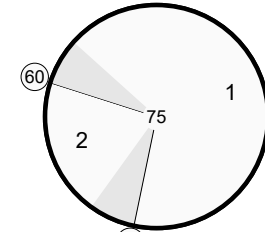
Signal Timings Diagram



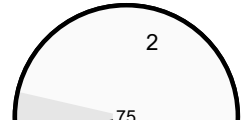
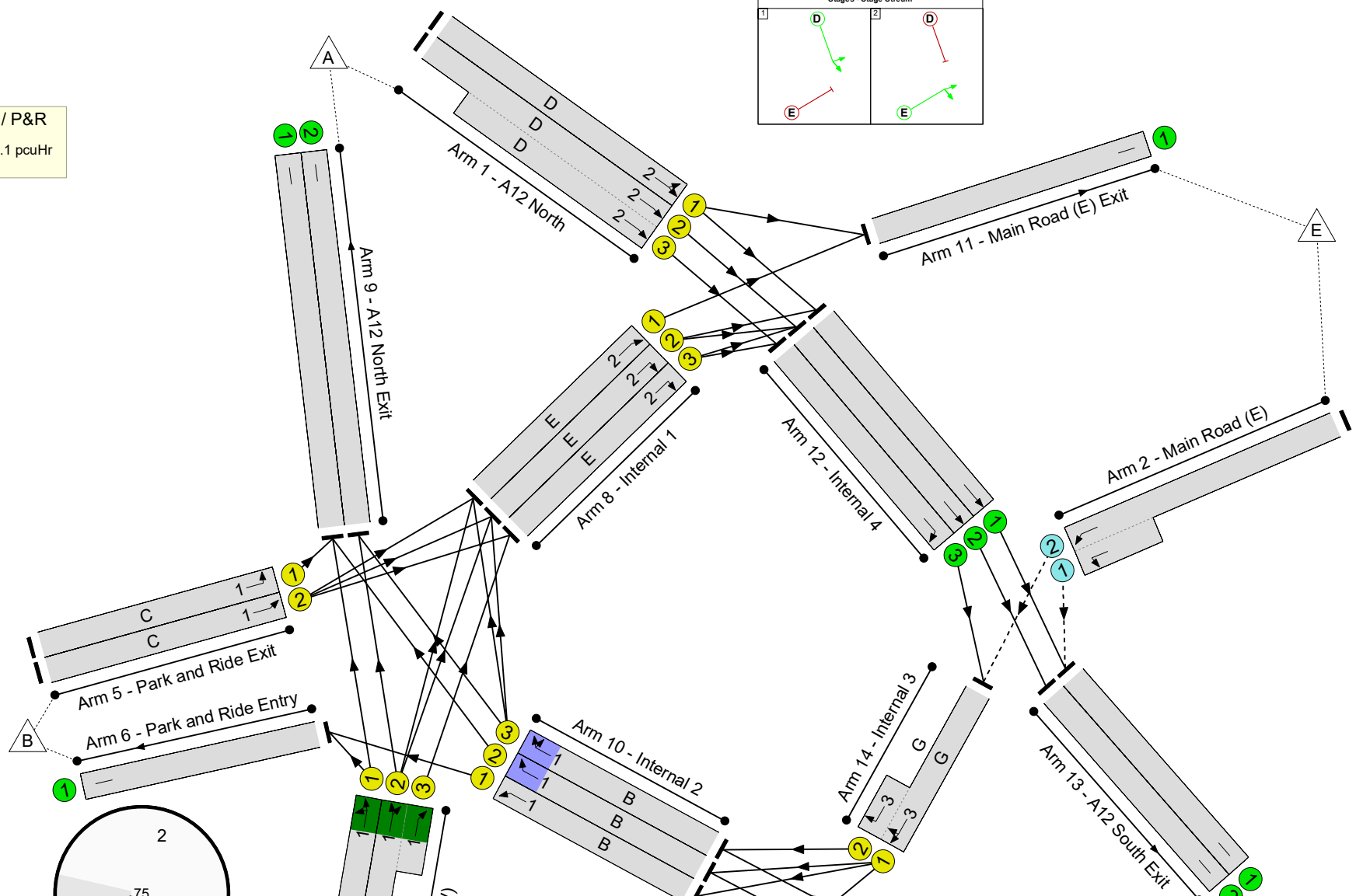
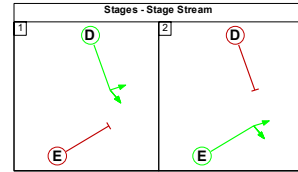
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -49.6 %  
 Total Traffic Delay: 303.1 pcuHr



C1 - PEED TS40SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>134.6%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>134.6%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	50	-	580	1964	1336	43.4%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	50	-	1020	2105:2115	1173+676	55.2 : 55.2%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	442	950:1845	318+167	91.2 : 91.2%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	19	-	1372	2070:1910	552+509	134.6 : 123.5%
3/3	A12 South Ahead	U	3	N/A	F		1	19	-	732	2084	556	131.7%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	294	2034	597	49.3%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	541	2175:2175	433+394	65.4 : 65.4%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	20	1995	266	7.5%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	25	2125	283	8.8%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1275	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	15	-	273	1993	425	54.8%
8/2	Internal 1 Right	U	2	N/A	E		1	15	-	172	2137	456	37.6%
8/3	Internal 1 Right	U	2	N/A	E		1	15	-	269	2127	454	59.3%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1060	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	588	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	748	2066	1129	49.3%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	736	2066	1129	49.6%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1002	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	810	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1002	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	46	-	663	1800:1800	1128+7	58.4 : 58.4%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>884</b>	<b>0</b>	<b>0</b>	<b>45.3</b>	<b>257.8</b>	<b>0.0</b>	<b>303.1</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>884</b>	<b>0</b>	<b>0</b>	<b>45.3</b>	<b>257.8</b>	<b>0.0</b>	<b>303.1</b>	-	-	-	-
1/1	580	580	-	-	-	0.9	0.4	-	1.3	7.8	5.5	0.4	5.9
1/2+1/3	1020	1020	-	-	-	1.5	0.6	-	2.1	7.4	6.1	0.6	6.7
2/2+2/1	442	442	884	0	0	0.4	4.3	-	4.8	38.7	4.3	4.3	8.6
3/2+3/1	1372	1061	-	-	-	20.3	157.5	-	177.8	466.5	25.0	157.5	182.5
3/3	732	556	-	-	-	13.3	90.2	-	103.5	508.9	22.0	90.2	112.1
4/1	294	294	-	-	-	1.8	0.5	-	2.3	27.8	5.0	0.5	5.5
4/2+4/3	541	541	-	-	-	3.2	0.9	-	4.2	27.7	5.6	0.9	6.6
5/1	20	20	-	-	-	0.2	0.0	-	0.2	35.9	0.4	0.0	0.4
5/2	25	25	-	-	-	0.2	0.0	-	0.2	35.6	0.5	0.0	0.5
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1156	1156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	233	233	-	-	-	1.8	0.6	-	2.4	37.4	4.6	0.6	5.2
8/2	172	172	-	-	-	0.2	0.3	-	0.5	11.0	3.0	0.3	3.3
8/3	269	269	-	-	-	0.4	0.7	-	1.2	15.5	5.0	0.7	5.7
9/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	452	452	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	7	7	-	-	-	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
10/2	557	557	-	-	-	0.0	0.5	-	0.5	3.2	0.1	0.5	0.5
10/3	560	560	-	-	-	0.0	0.5	-	0.5	3.3	0.0	0.5	0.5
11/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1002	1002	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

13/2	1002	1002	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	663	663	-	-	-	1.0	0.7	-	1.7	9.2	7.2	0.7	7.9
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		37.6		Total Delay for Signalled Lanes (pcuHr)		7.90		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		51.8		Total Delay for Signalled Lanes (pcuHr)		7.46		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-49.6		Total Delay for Signalled Lanes (pcuHr)		282.97		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-49.6		Total Delay Over All Lanes(pcuHr)		303.08					

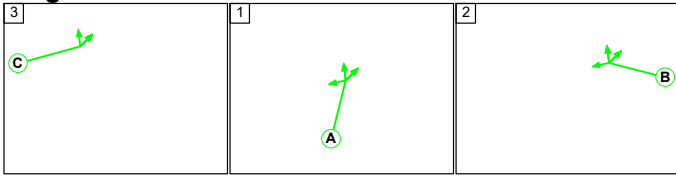


Full Input Data And Results

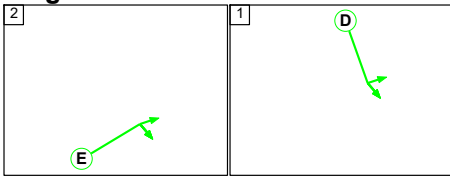
Scenario 26: '2034 Reference Case 6-7AM' (FG31: '34RC\_6-7AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

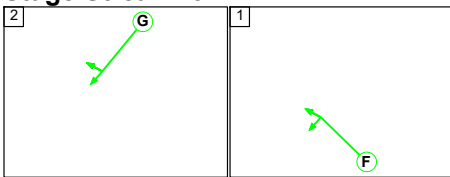
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

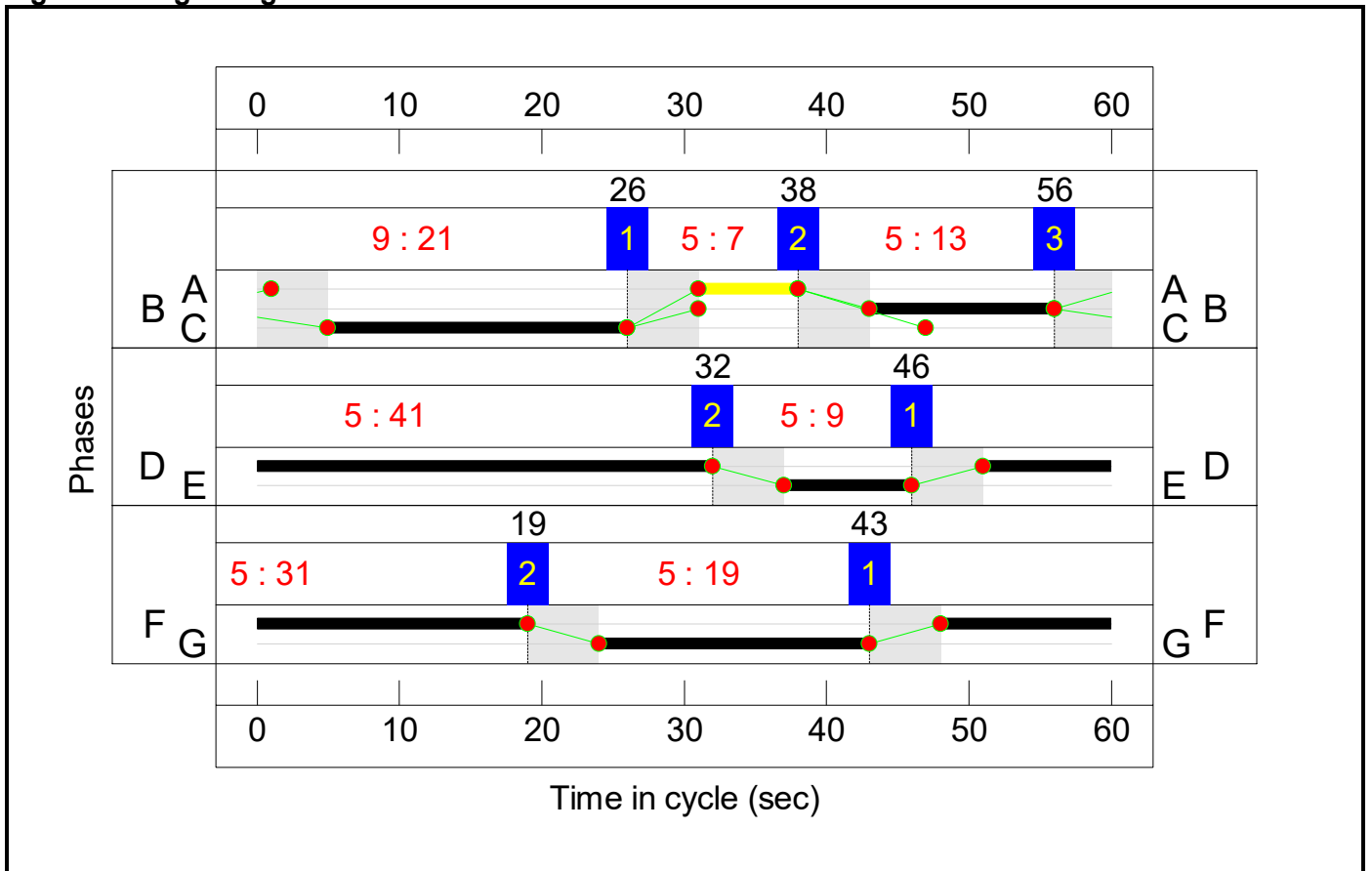
Stage Stream: 2

Stage	2	1
Duration	9	41
Change Point	32	46

Stage Stream: 3

Stage	2	1
Duration	19	31
Change Point	19	43

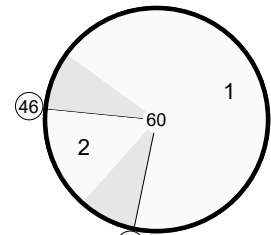
Signal Timings Diagram



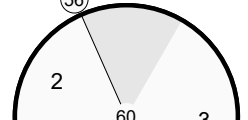
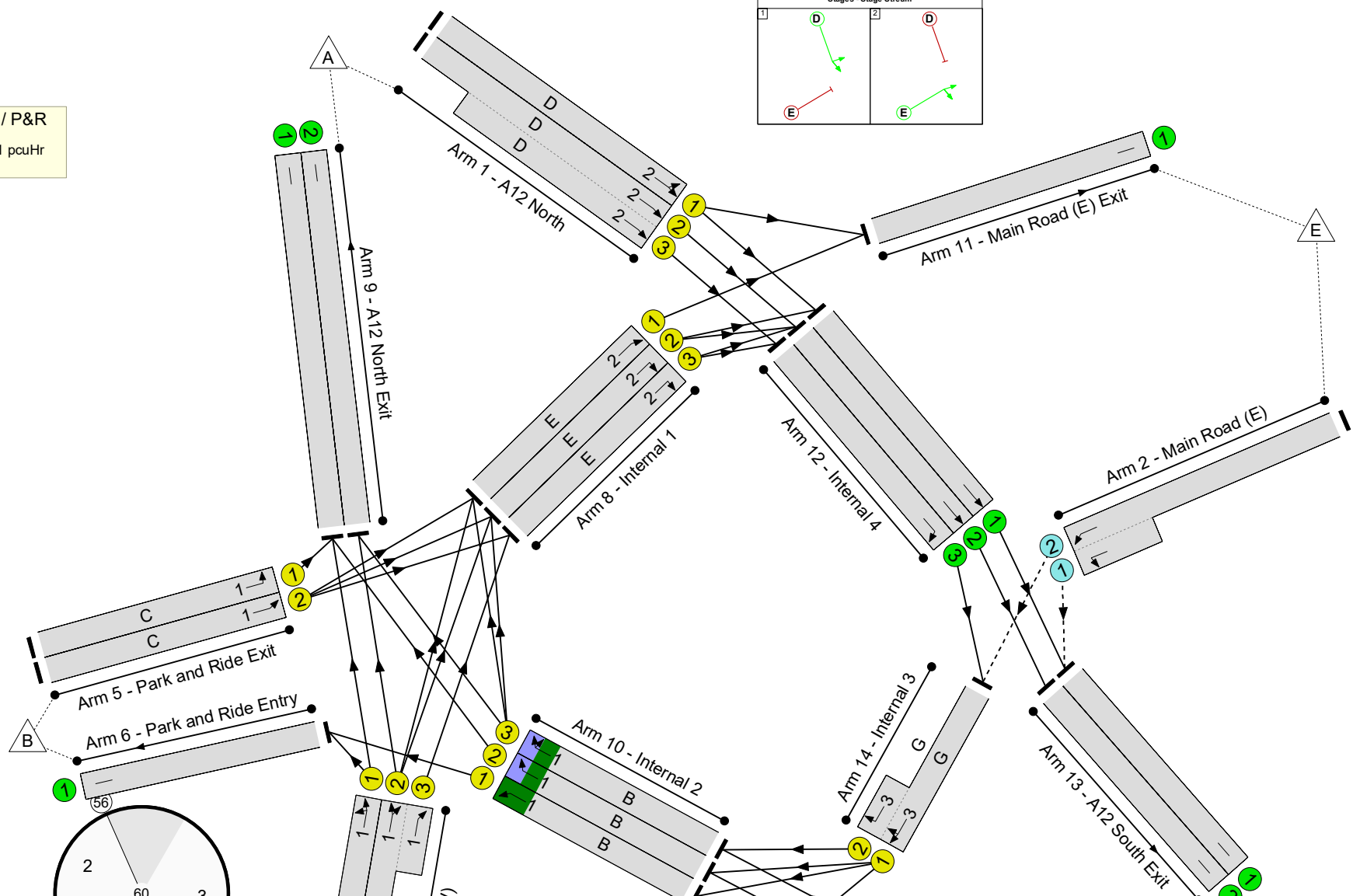
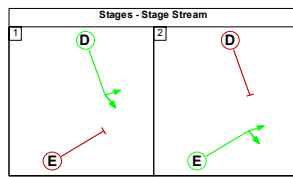
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 24.8 %  
 Total Traffic Delay: 11.1 pcuHr



C1 - PEED TS32SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>72.1%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>72.1%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	332	1965	1375	24.1%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	610	2105:2115	1327+452	34.3 : 34.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	40	950:1845	70+629	5.7 : 5.7%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	497	2070:1910	1054+619	29.7 : 29.7%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	243	2084	1111	21.9%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	141	2034	271	52.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	343	2175:2175	280+196	72.1 : 72.1%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	0	1995	732	0.0%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	9	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	10	1993	332	3.0%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	117	2137	356	32.8%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	143	2127	354	40.3%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	8	1932	966	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	316	2066	1033	30.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	244	2066	1033	23.6%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	159	1800:1800	600+4	26.3 : 26.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	80	0	0	7.3	3.8	0.0	11.1	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	80	0	0	7.3	3.8	0.0	11.1	-	-	-	-
1/1	332	332	-	-	-	0.3	0.2	-	0.5	5.0	1.9	0.2	2.1
1/2+1/3	610	610	-	-	-	0.6	0.3	-	0.8	4.9	2.8	0.3	3.0
2/2+2/1	40	40	80	0	0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
3/2+3/1	497	497	-	-	-	1.0	0.2	-	1.3	9.1	2.8	0.2	3.0
3/3	243	243	-	-	-	0.5	0.1	-	0.6	9.5	2.1	0.1	2.2
4/1	141	141	-	-	-	0.9	0.5	-	1.5	37.9	2.2	0.5	2.7
4/2+4/3	343	343	-	-	-	2.3	1.3	-	3.6	37.9	3.2	1.3	4.5
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.1	0.0	-	0.1	40.9	0.2	0.0	0.2
8/2	117	117	-	-	-	0.1	0.2	-	0.3	9.2	0.2	0.2	0.4
8/3	143	143	-	-	-	0.1	0.3	-	0.4	9.9	0.7	0.3	1.0
9/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	7.5	0.0	0.0	0.0
10/2	316	316	-	-	-	0.5	0.2	-	0.7	7.7	1.1	0.2	1.3
10/3	244	244	-	-	-	0.3	0.2	-	0.5	7.4	0.9	0.2	1.0
11/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0



### Full Input Data And Results

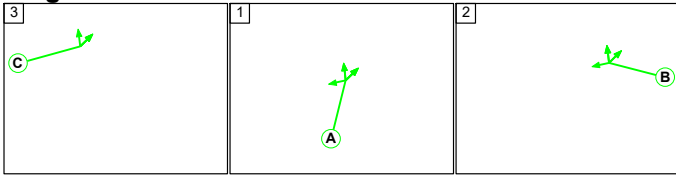
13/2	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	159	159	-	-	-	0.6	0.2	-	0.8	17.8	2.1	0.2	2.2
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		24.8	Total Delay for Signalled Lanes (pcuHr)		6.29	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		123.1	Total Delay for Signalled Lanes (pcuHr)		2.09	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		202.9	Total Delay for Signalled Lanes (pcuHr)		2.68	Cycle Time (s)		60			
		PRC Over All Lanes (%)		24.8	Total Delay Over All Lanes(pcuHr)		11.09						

Full Input Data And Results

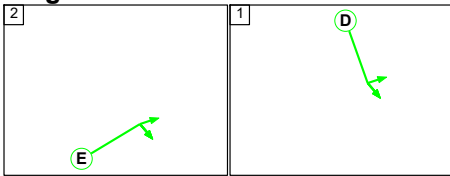
Scenario 27: '2034 Reference Case 7-8AM' (FG32: '34RC\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

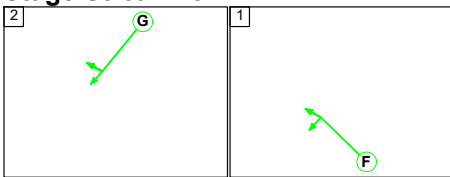
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

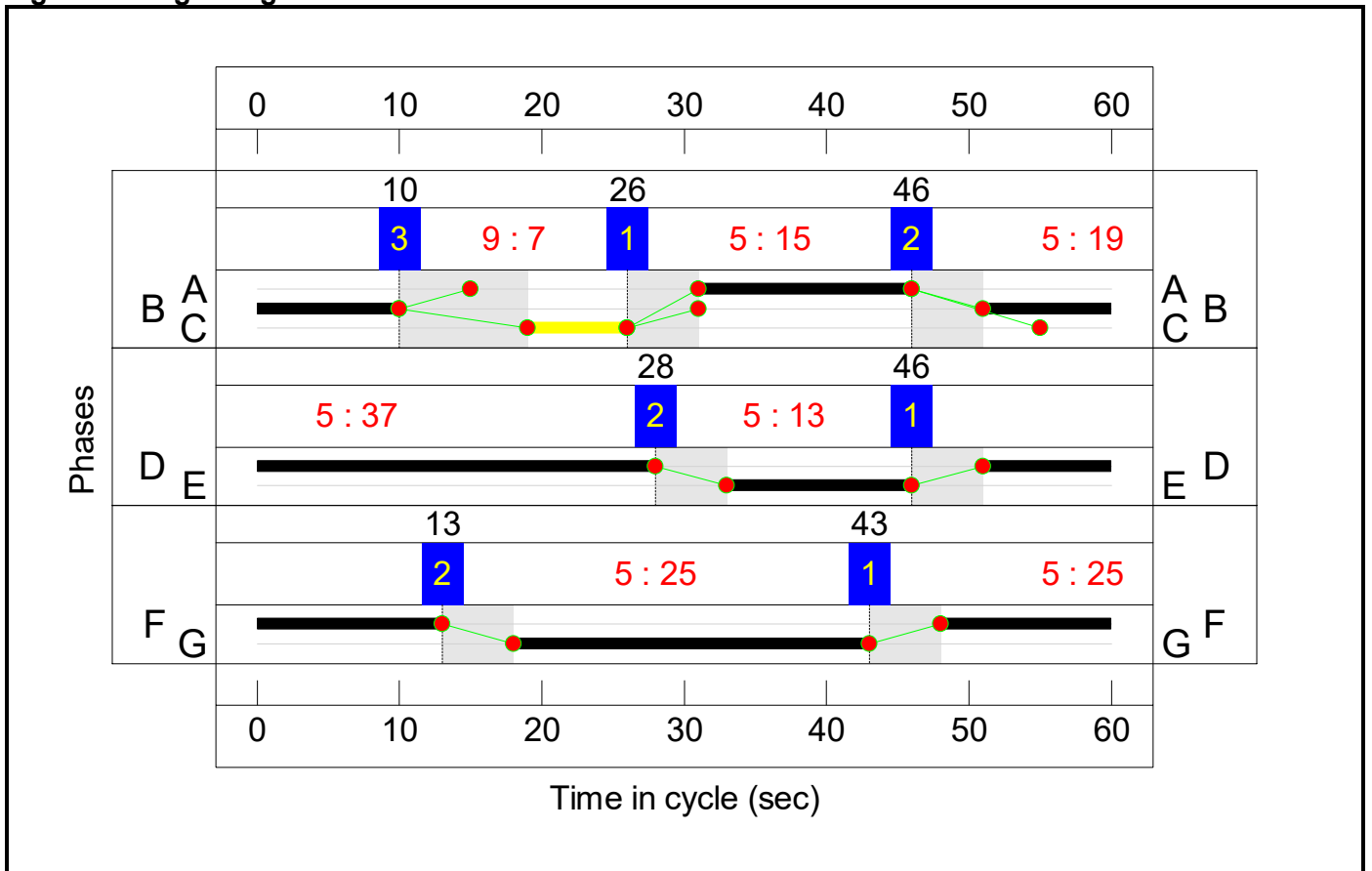
Stage Stream: 2

Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43

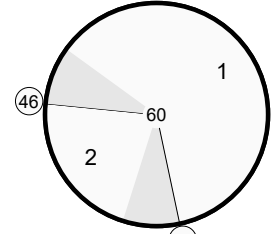
**Signal Timings Diagram**



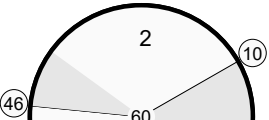
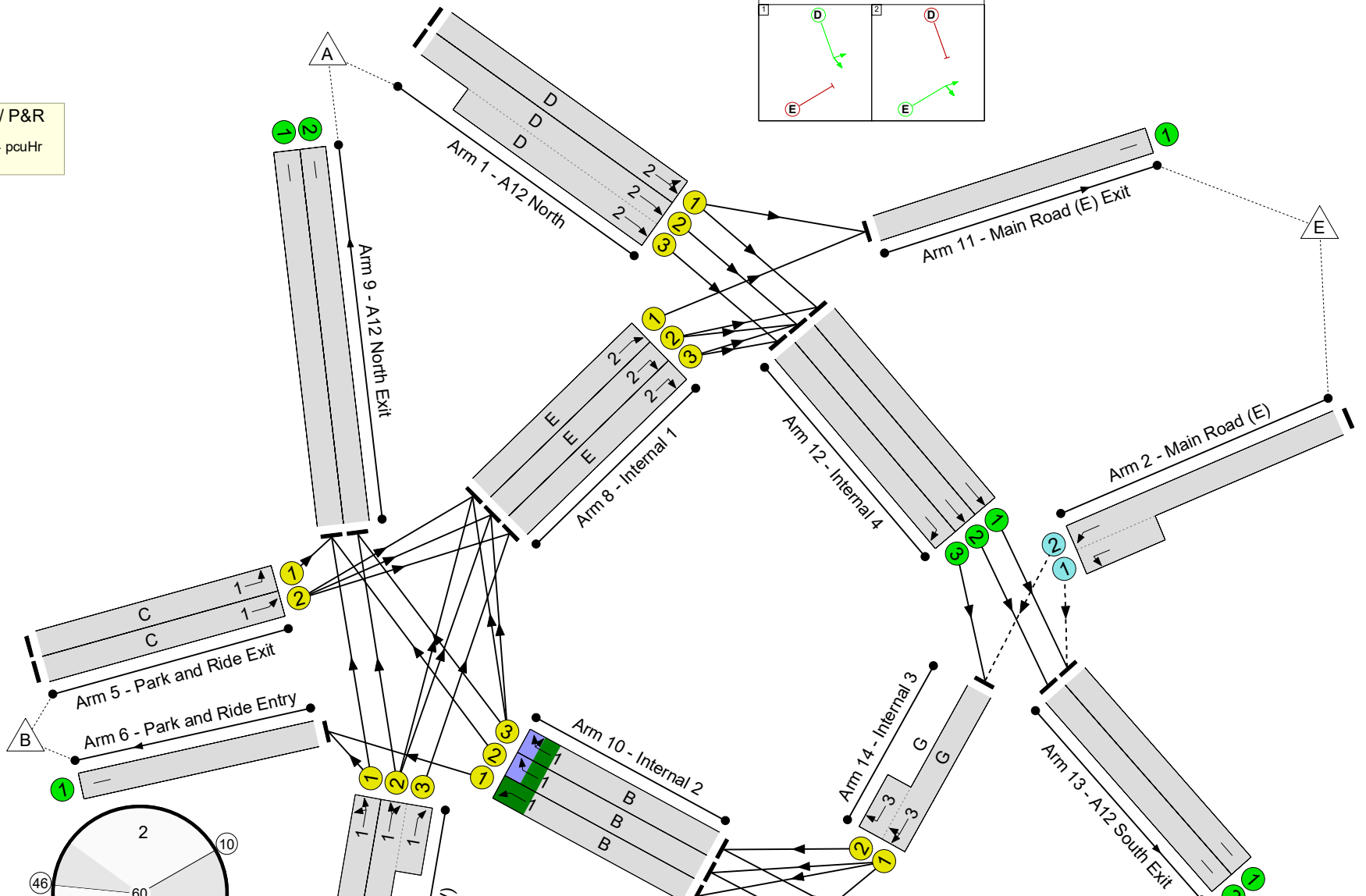
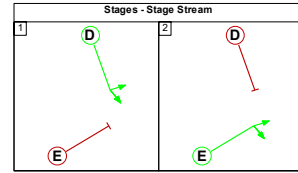
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 0.7 %  
 Total Traffic Delay: 34.4 pcuHr



C1 - PEED TSC SE28ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.4%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.4%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	636	1965	1244	51.1%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	1077	2105:2115	1198+546	61.8 : 61.8%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	87	950:1845	33+537	15.3 : 15.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1163	2070:1908	897+572	79.2 : 79.2%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	645	2084	903	71.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	446	2032	542	82.3%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	729	2175:2175	427+388	89.4 : 89.4%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	60	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	736	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	24	1993	465	5.2%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	346	2137	499	69.4%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	347	2127	496	69.9%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	47	1932	1095	4.3%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	710	2066	1171	60.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	657	2066	1171	56.1%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1260	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	891	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1260	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	342	1800:1800	772+28	42.8 : 42.8%



Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	174	0	0	19.6	14.7	0.0	34.4	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	174	0	0	19.6	14.7	0.0	34.4	-	-	-	-
1/1	636	636	-	-	-	1.1	0.5	-	1.6	8.9	5.7	0.5	6.2
1/2+1/3	1077	1077	-	-	-	1.7	0.8	-	2.5	8.5	6.8	0.8	7.6
2/2+2/1	87	87	174	0	0	0.0	0.1	-	0.1	3.8	0.0	0.1	0.1
3/2+3/1	1163	1163	-	-	-	4.5	1.9	-	6.4	19.7	10.1	1.9	11.9
3/3	645	645	-	-	-	2.5	1.2	-	3.7	20.9	8.8	1.2	10.0
4/1	446	446	-	-	-	2.6	2.2	-	4.8	38.6	6.9	2.2	9.2
4/2+4/3	729	729	-	-	-	4.0	3.9	-	7.9	38.9	7.8	3.9	11.7
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	60	60	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	24	24	-	-	-	0.1	0.0	-	0.2	26.3	0.4	0.0	0.4
8/2	346	346	-	-	-	1.0	1.1	-	2.1	21.8	1.4	1.1	2.5
8/3	347	347	-	-	-	1.0	1.1	-	2.1	21.8	1.3	1.1	2.4
9/1	1146	1146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	47	47	-	-	-	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
10/2	710	710	-	-	-	0.0	0.8	-	0.8	3.9	0.0	0.8	0.8
10/3	657	657	-	-	-	0.0	0.6	-	0.7	3.7	0.1	0.6	0.8
11/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1260	1260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	891	891	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

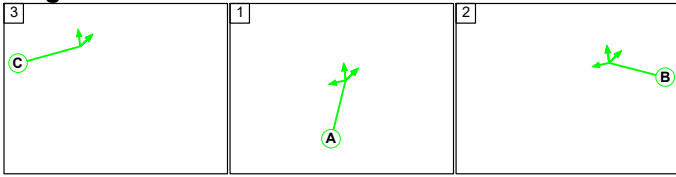
13/2	1260	1260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	342	342	-	-	-	1.1	0.4	-	1.5	15.9	4.5	0.4	4.9
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		0.7		Total Delay for Signalled Lanes (pcuHr)		14.17		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		28.7		Total Delay for Signalled Lanes (pcuHr)		8.49		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		13.7		Total Delay for Signalled Lanes (pcuHr)		11.61		Cycle Time (s)		60	
		PRC Over All Lanes (%)		0.7		Total Delay Over All Lanes(pcuHr)		34.36					

Full Input Data And Results

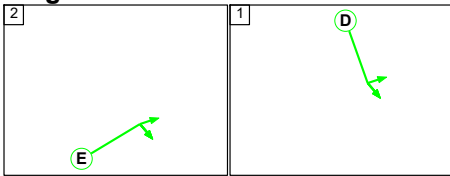
Scenario 28: '2034 Reference Case 8-9AM' (FG33: '34RC\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

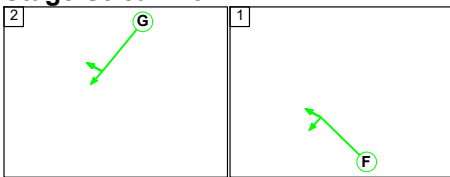
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

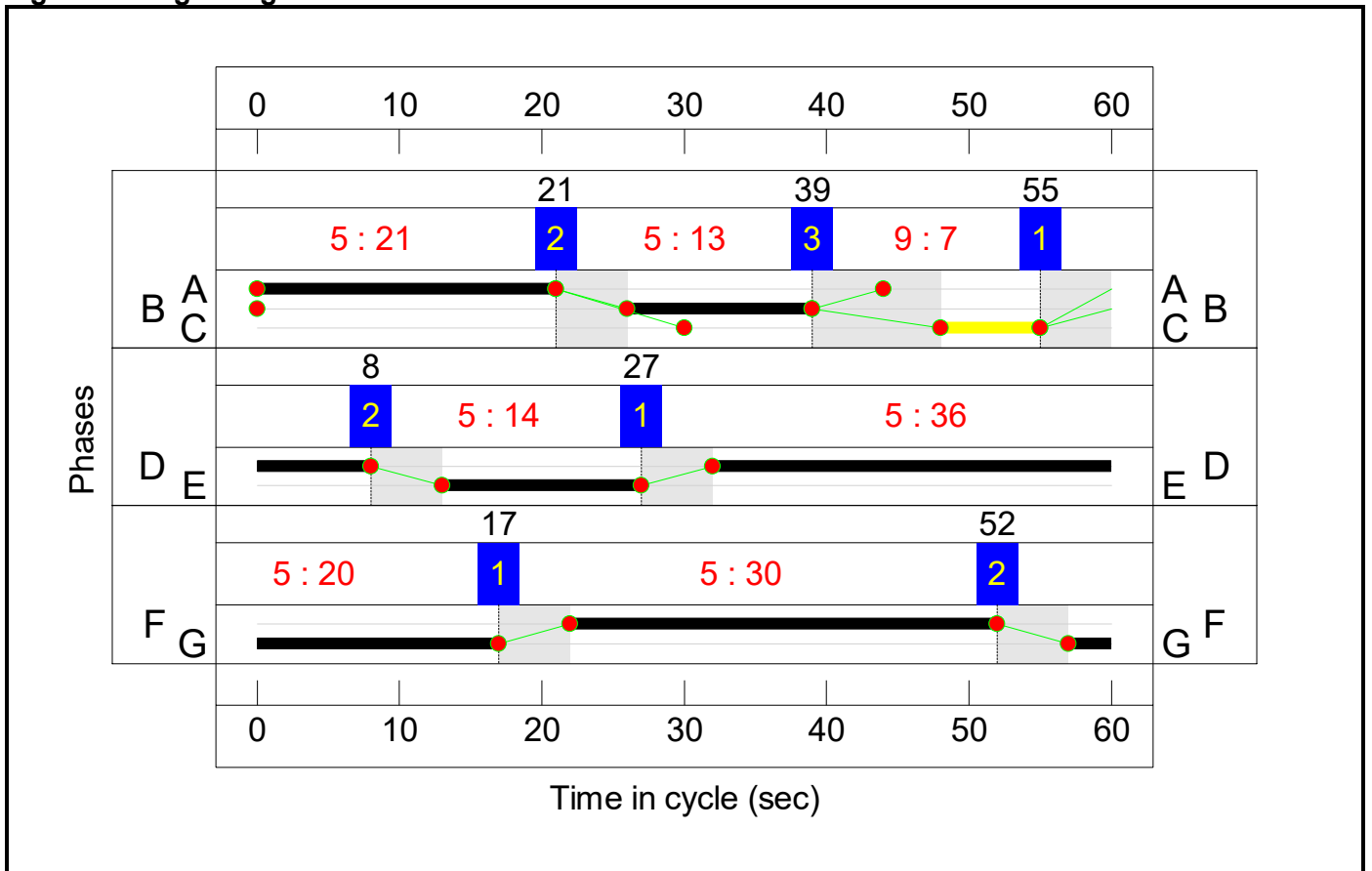
Stage Stream: 2

Stage	2	1
Duration	14	36
Change Point	8	27

Stage Stream: 3

Stage	2	1
Duration	20	30
Change Point	52	17

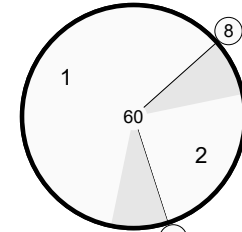
Signal Timings Diagram



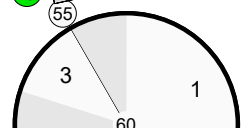
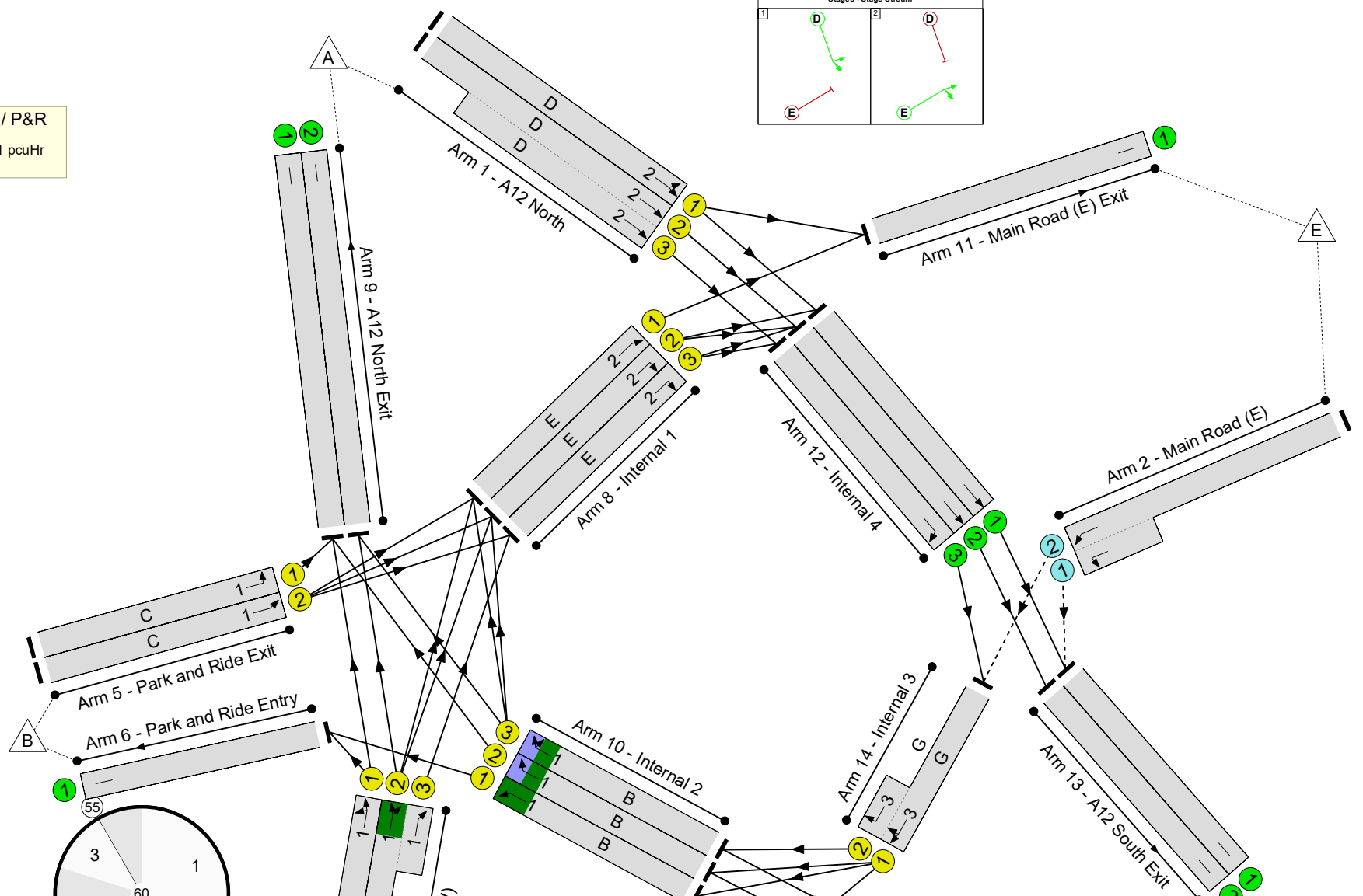
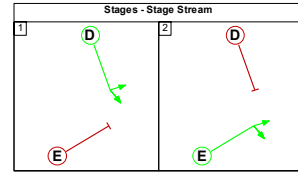
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -15.1 %  
 Total Traffic Delay: 60.1 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	103.6%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	103.6%
1/1	A12 North Left Ahead	U	2	N/A	D		1	36	-	659	1965	1212	54.4%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	36	-	1179	2105:2115	1160+625	66.0 : 66.0%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	149	950:1845	72+525	25.0 : 25.0%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	30	-	1328	2070:1908	1026+800	72.7 : 72.7%
3/3	A12 South Ahead	U	3	N/A	F		1	30	-	726	2084	1077	67.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	410	2033	745	55.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	965	2175:2175	521+410	103.6 : 103.6%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	7	1995	266	2.6%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	65	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	931	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	14	-	181	1993	498	35.4%
8/2	Internal 1 Right	U	2	N/A	E		1	14	-	423	2137	534	76.5%
8/3	Internal 1 Right	U	2	N/A	E		1	14	-	426	2127	532	77.9%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%



### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	58	1932	902	6.4%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	761	2066	964	78.9%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	736	2066	964	76.3%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	181	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	871	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1402	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	1002	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1402	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	20	-	432	1800:1800	630+15	67.0 : 67.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>298</b>	<b>0</b>	<b>0</b>	<b>21.4</b>	<b>38.7</b>	<b>0.0</b>	<b>60.1</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>298</b>	<b>0</b>	<b>0</b>	<b>21.4</b>	<b>38.7</b>	<b>0.0</b>	<b>60.1</b>	-	-	-	-
1/1	659	659	-	-	-	1.2	0.6	-	1.8	9.9	6.2	0.6	6.8
1/2+1/3	1179	1179	-	-	-	2.1	1.0	-	3.1	9.4	7.7	1.0	8.6
2/2+2/1	149	149	298	0	0	0.0	0.2	-	0.2	4.3	0.1	0.2	0.2
3/2+3/1	1328	1328	-	-	-	3.9	1.3	-	5.2	14.2	9.3	1.3	10.7
3/3	726	726	-	-	-	2.2	1.0	-	3.2	15.9	8.9	1.0	9.9
4/1	410	410	-	-	-	1.7	0.6	-	2.3	20.4	5.4	0.6	6.0
4/2+4/3	965	935	-	-	-	5.6	26.0	-	31.5	117.7	14.4	26.0	40.3
5/1	7	7	-	-	-	0.0	0.0	-	0.1	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	65	65	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	931	931	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	177	177	-	-	-	0.5	0.3	-	0.8	16.7	2.1	0.3	2.4
8/2	409	409	-	-	-	0.6	1.6	-	2.2	19.3	6.0	1.6	7.6
8/3	414	414	-	-	-	0.6	1.7	-	2.4	20.4	5.4	1.7	7.1
9/1	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	58	58	-	-	-	0.1	0.0	-	0.1	5.6	0.1	0.0	0.2
10/2	761	761	-	-	-	0.6	1.8	-	2.5	11.8	3.3	1.8	5.1
10/3	736	736	-	-	-	0.6	1.6	-	2.2	10.6	2.7	1.6	4.2
11/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1383	1383	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	995	995	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

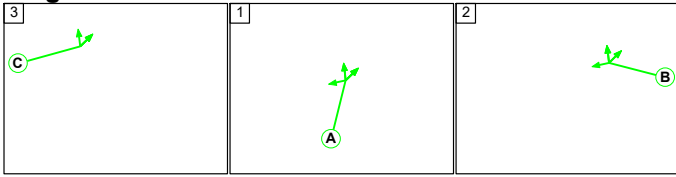
13/2	1383	1383	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	432	432	-	-	-	1.4	1.0	-	2.5	20.4	6.1	1.0	7.1
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-15.1		Total Delay for Signalled Lanes (pcuHr):		38.79		Cycle Time (s):		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		15.5		Total Delay for Signalled Lanes (pcuHr):		10.25		Cycle Time (s):		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		23.8		Total Delay for Signalled Lanes (pcuHr):		10.88		Cycle Time (s):		60	
		PRC Over All Lanes (%)		-15.1		Total Delay Over All Lanes(pcuHr):		60.10					

Full Input Data And Results

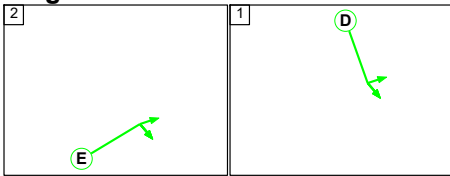
Scenario 29: '2034 Reference Case 3-4PM' (FG34: '34RC\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

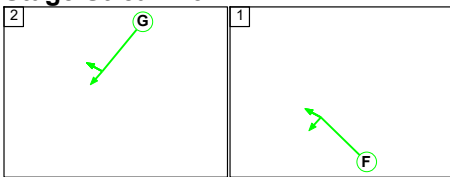
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

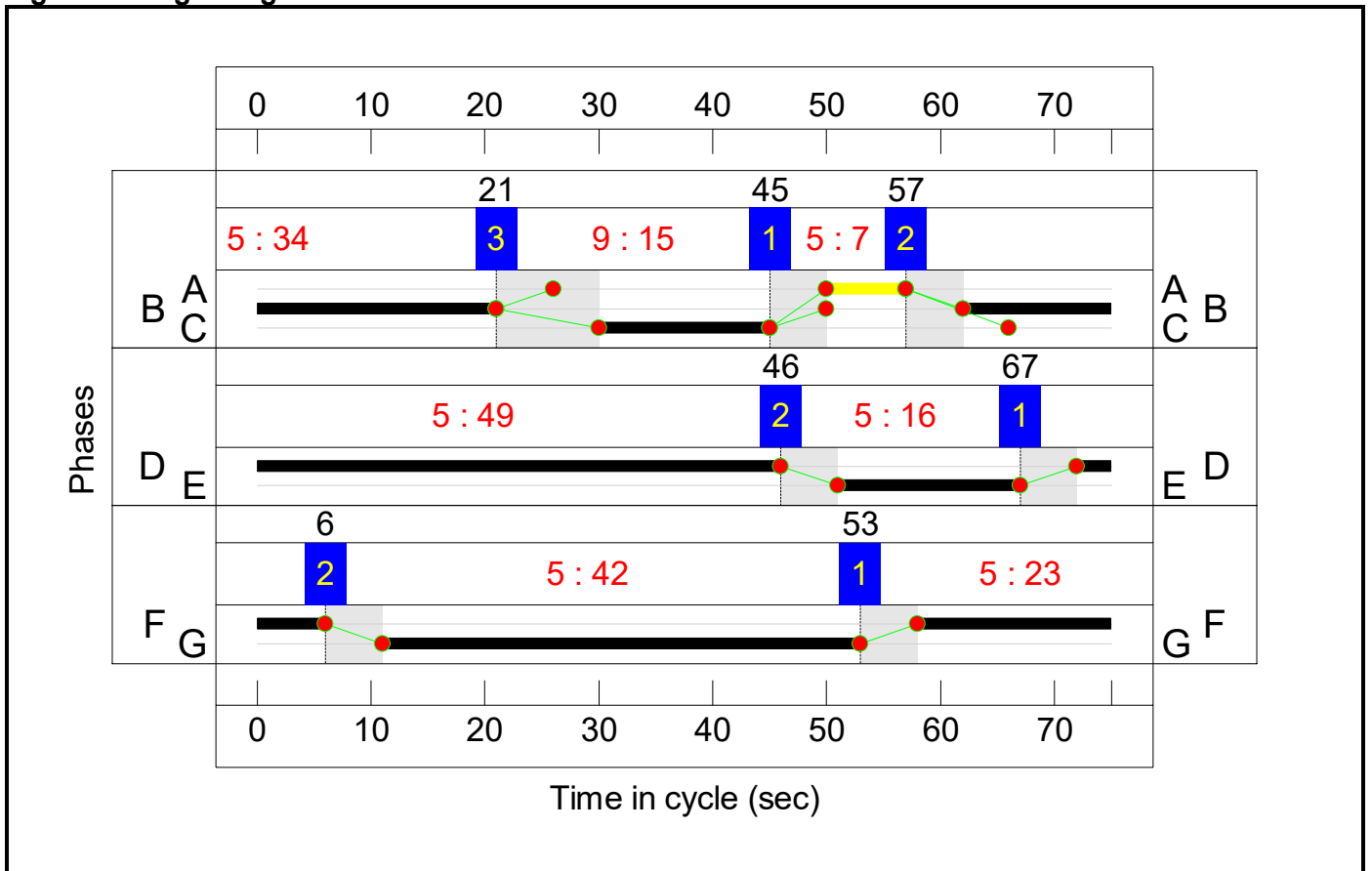
Stage Stream: 2

Stage	2	1
Duration	16	49
Change Point	46	67

Stage Stream: 3

Stage	2	1
Duration	42	23
Change Point	6	53

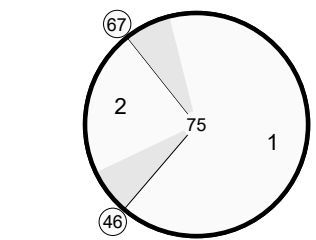
Signal Timings Diagram



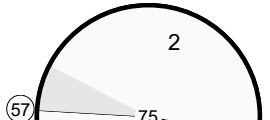
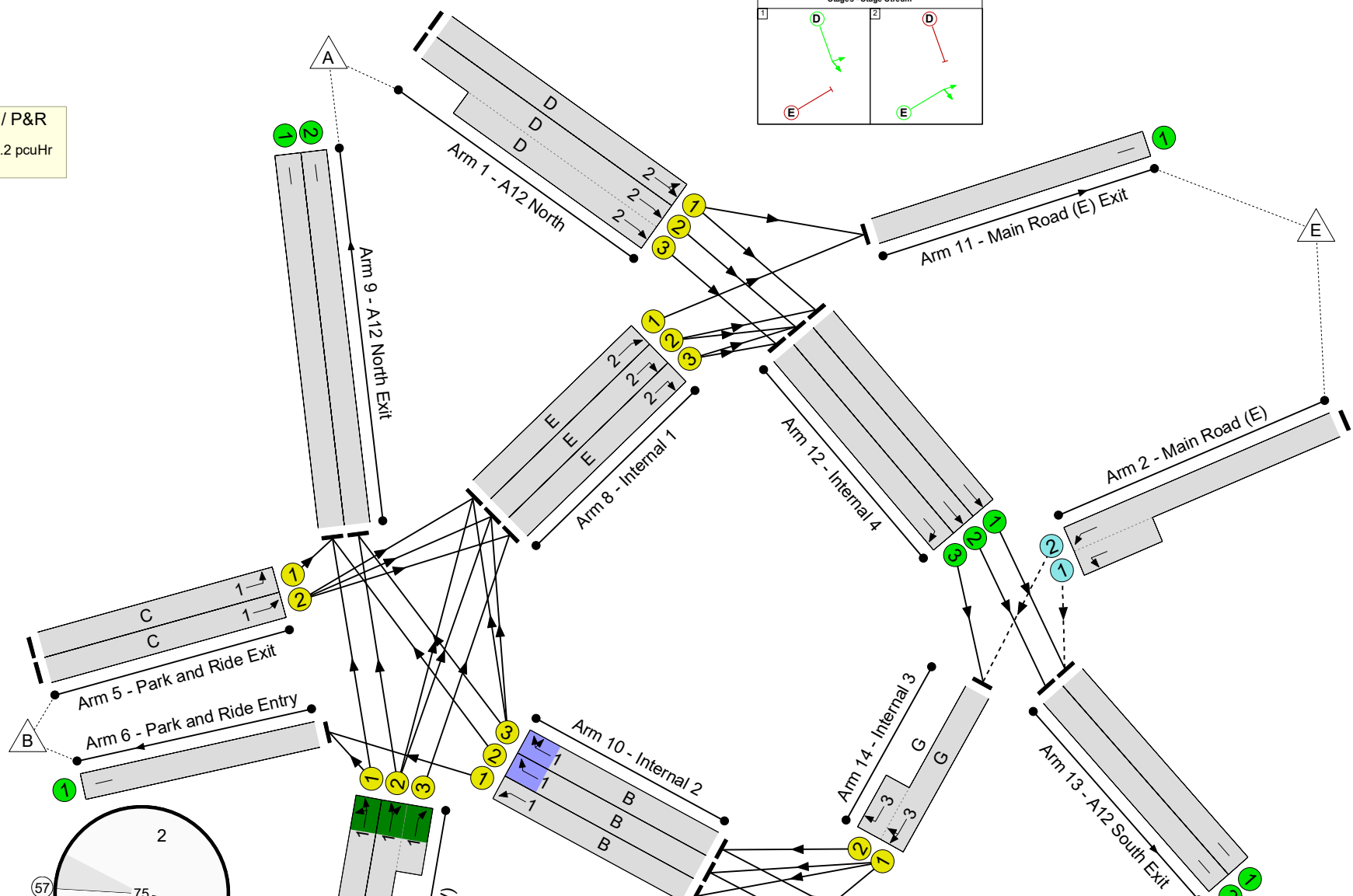
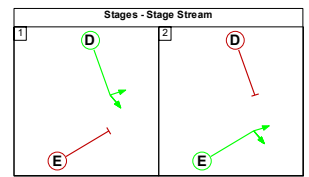
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -30.5 %  
 Total Traffic Delay: 214.2 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	117.5%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	117.5%
1/1	A12 North Left Ahead	U	2	N/A	D		1	49	-	689	1965	1310	52.6%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	49	-	1118	2105:2115	1175+595	63.2 : 63.2%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	388	950:1845	239+136	103.3 : 103.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	23	-	1432	2070:1910	662+599	117.5 : 109.1%
3/3	A12 South Ahead	U	3	N/A	F		1	23	-	776	2084	667	116.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	392	2035	597	65.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	733	2175:2175	424+416	87.3 : 87.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	4	1995	426	0.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	15	2125	453	3.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	4	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1262	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	16	-	151	1993	452	28.8%
8/2	Internal 1 Right	U	2	N/A	E		1	16	-	372	2137	484	76.8%
8/3	Internal 1 Right	U	2	N/A	E		1	16	-	374	2127	482	77.6%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1183	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	4	1932	902	0.4%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	787	2066	964	69.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	779	2066	964	69.5%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1301	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	1016	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1301	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	42	-	624	1800:1800	1032+5	59.4 : 58.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>760</b>	<b>0</b>	<b>0</b>	<b>41.5</b>	<b>172.7</b>	<b>0.0</b>	<b>214.2</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>760</b>	<b>0</b>	<b>0</b>	<b>41.5</b>	<b>172.7</b>	<b>0.0</b>	<b>214.2</b>	-	-	-	-
1/1	689	689	-	-	-	1.2	0.6	-	1.8	9.3	7.3	0.6	7.8
1/2+1/3	1118	1118	-	-	-	1.9	0.9	-	2.7	8.7	7.8	0.9	8.7
2/2+2/1	388	380	760	0	0	0.9	13.5	-	14.4	133.2	11.3	13.5	24.8
3/2+3/1	1432	1262	-	-	-	15.6	89.2	-	104.7	263.3	24.6	89.2	113.7
3/3	776	667	-	-	-	10.1	57.9	-	68.1	315.7	18.8	57.9	76.7
4/1	392	392	-	-	-	2.5	0.9	-	3.5	31.9	7.1	0.9	8.0
4/2+4/3	733	733	-	-	-	4.7	3.3	-	8.0	39.2	10.2	3.3	13.5
5/1	4	4	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	15	15	-	-	-	0.1	0.0	-	0.1	27.7	0.2	0.0	0.3
6/1	4	4	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1201	1201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	130	130	-	-	-	1.6	0.2	-	1.8	51.0	2.7	0.2	2.9
8/2	372	372	-	-	-	0.8	1.6	-	2.4	22.9	7.6	1.6	9.2
8/3	374	374	-	-	-	0.8	1.7	-	2.5	23.9	7.7	1.7	9.4
9/1	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	4	4	-	-	-	0.0	0.0	-	0.0	11.7	0.0	0.0	0.0
10/2	671	671	-	-	-	0.0	1.1	-	1.2	6.3	0.1	1.1	1.3
10/3	670	670	-	-	-	0.0	1.1	-	1.1	6.2	0.1	1.1	1.2
11/1	130	130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1301	1301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

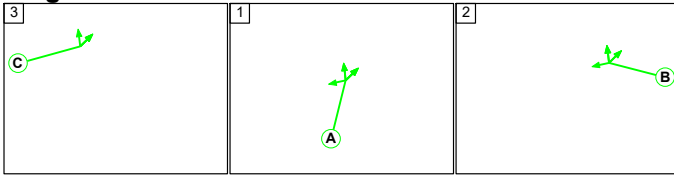
13/2	1301	1301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	616	616	-	-	-	1.2	0.7	-	1.9	11.3	7.2	0.7	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		3.0		Total Delay for Signalled Lanes (pcuHr)		13.94		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		16.0		Total Delay for Signalled Lanes (pcuHr)		11.19		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-30.5		Total Delay for Signalled Lanes (pcuHr)		174.72		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-30.5		Total Delay Over All Lanes(pcuHr)		214.20					

Full Input Data And Results

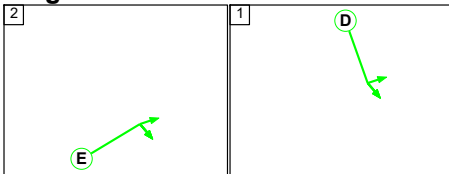
Scenario 30: '2034 Reference Case 5-6PM' (FG35: '34RC\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

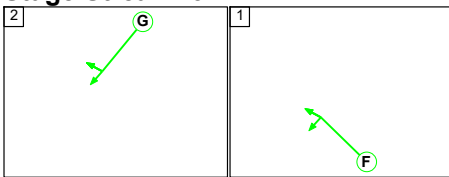
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

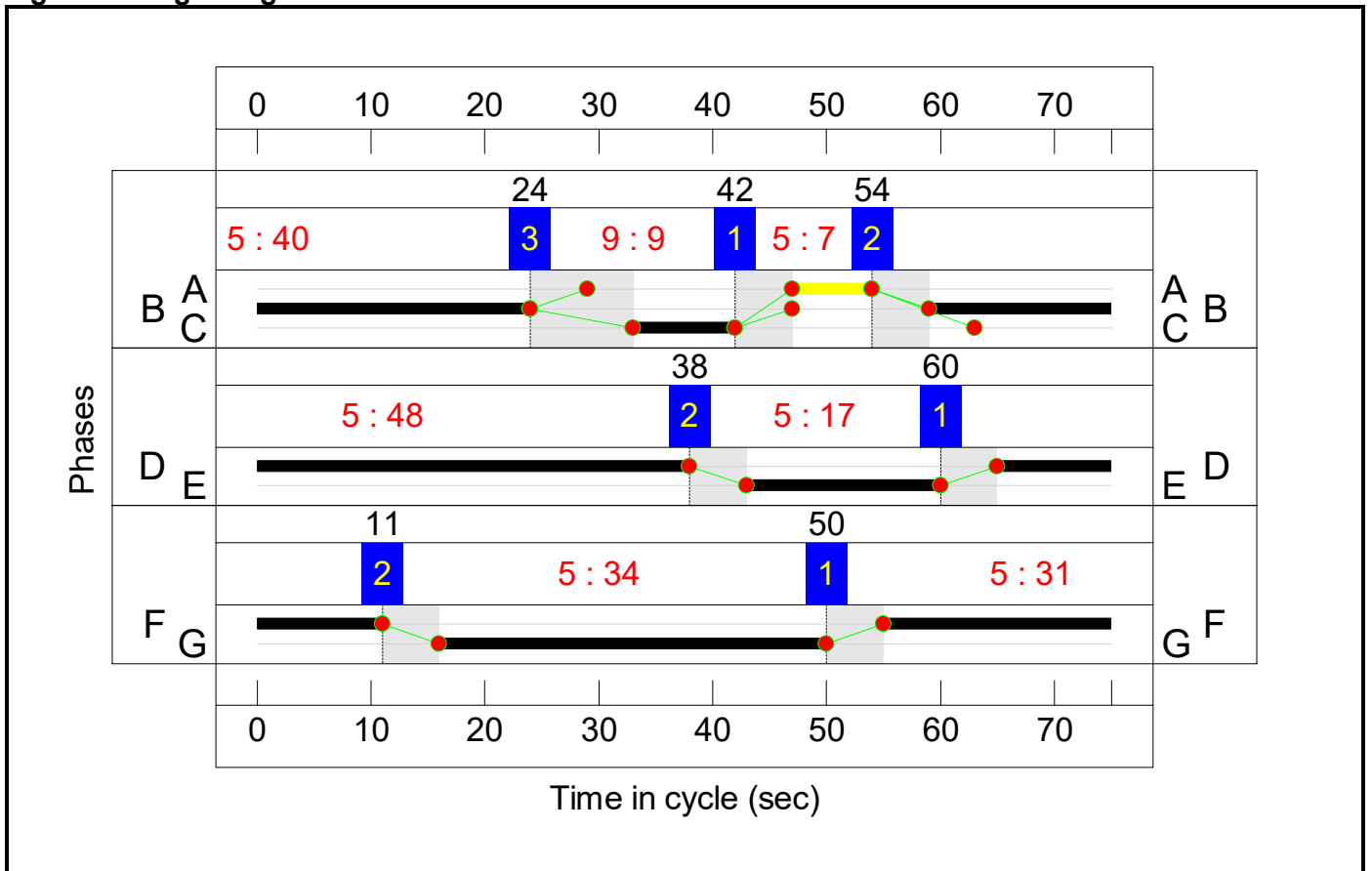
Stage Stream: 2

Stage	2	1
Duration	17	48
Change Point	38	60

Stage Stream: 3

Stage	2	1
Duration	34	31
Change Point	11	50

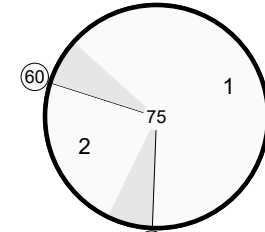
Signal Timings Diagram



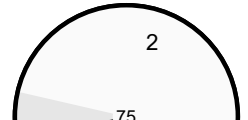
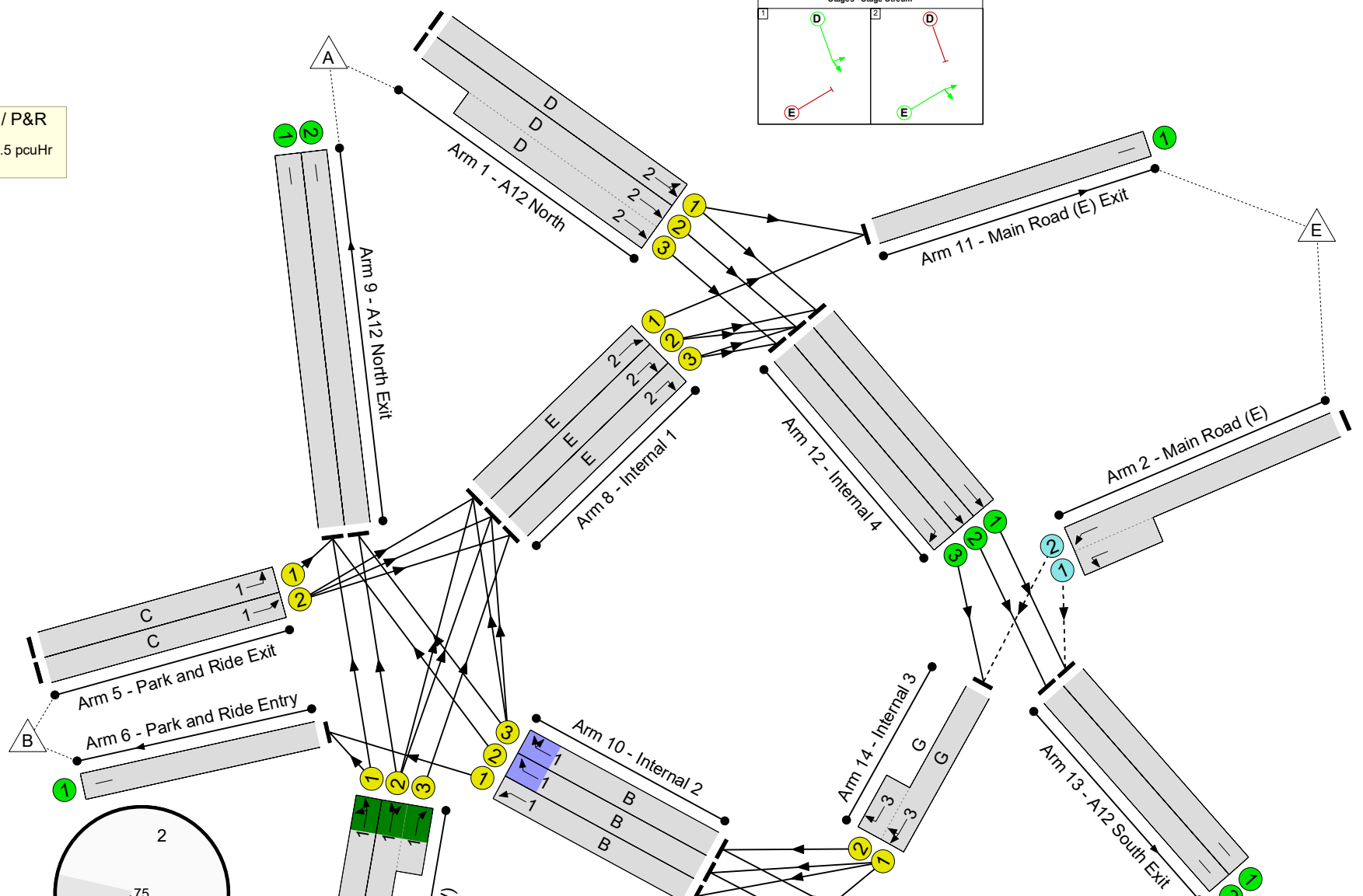
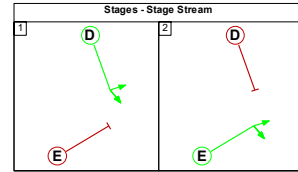
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -19.4 %  
 Total Traffic Delay: 127.5 pcuHr



C1 - PEED TSC SERIES 3 Stream 2





## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	107.5%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	107.5%
1/1	A12 North Left Ahead	U	2	N/A	D		1	48	-	614	1965	1284	47.8%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	48	-	1057	2105:2115	1139+650	59.1 : 59.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	231	950:1845	260+552	28.4 : 28.4%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	1249	2070:1910	351+811	107.5 : 107.5%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	955	2084	889	107.4%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	334	2034	597	56.0%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	592	2175:2175	428+405	71.0 : 71.0%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	22	1995	266	8.3%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	26	2125	283	9.2%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1316	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	17	-	172	1993	478	34.0%
8/2	Internal 1 Right	U	2	N/A	E		1	17	-	252	2137	513	49.1%
8/3	Internal 1 Right	U	2	N/A	E		1	17	-	301	2127	510	59.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	8	1932	1056	0.7%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	383	2066	1129	31.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	956	2066	1129	78.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	172	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	740	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1099	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	385	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	897	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1099	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	34	-	459	1800:1800	840+2	54.5 : 54.5%

Full Input Data And Results

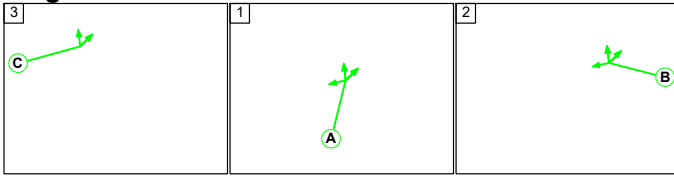
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>462</b>	<b>0</b>	<b>0</b>	<b>31.3</b>	<b>96.2</b>	<b>0.0</b>	<b>127.5</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>462</b>	<b>0</b>	<b>0</b>	<b>31.3</b>	<b>96.2</b>	<b>0.0</b>	<b>127.5</b>	-	-	-	-
1/1	614	614	-	-	-	1.1	0.5	-	1.6	9.2	6.3	0.5	6.8
1/2+1/3	1057	1057	-	-	-	1.8	0.7	-	2.5	8.7	7.1	0.7	7.8
2/2+2/1	231	231	462	0	0	0.0	0.2	-	0.2	3.7	0.3	0.2	0.5
3/2+3/1	1249	1162	-	-	-	10.2	49.8	-	60.0	172.9	25.9	49.8	75.7
3/3	955	889	-	-	-	8.5	39.0	-	47.5	179.1	21.3	39.0	60.3
4/1	334	334	-	-	-	2.1	0.6	-	2.7	29.2	5.8	0.6	6.5
4/2+4/3	592	592	-	-	-	3.6	1.2	-	4.8	29.2	6.7	1.2	7.9
5/1	22	22	-	-	-	0.2	0.0	-	0.2	36.0	0.4	0.0	0.4
5/2	26	26	-	-	-	0.2	0.1	-	0.3	35.6	0.5	0.1	0.5
6/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1256	1256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	162	162	-	-	-	1.4	0.3	-	1.6	36.5	3.2	0.3	3.5
8/2	252	252	-	-	-	0.2	0.5	-	0.7	10.4	4.3	0.5	4.8
8/3	301	301	-	-	-	0.3	0.7	-	1.1	12.6	5.5	0.7	6.2
9/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	5.8	0.0	0.0	0.0
10/2	357	357	-	-	-	0.0	0.2	-	0.3	2.6	0.1	0.2	0.3
10/3	890	890	-	-	-	0.0	1.8	-	1.9	7.5	0.1	1.8	1.9
11/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	740	740	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1099	1099	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	897	897	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

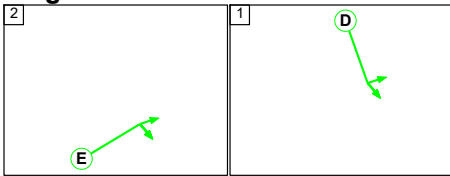
13/2	1099	1099	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	459	459	-	-	-	1.5	0.6	-	2.1	16.4	7.3	0.6	7.9
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		14.2		Total Delay for Signalled Lanes (pcuHr)		10.12		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		52.3		Total Delay for Signalled Lanes (pcuHr)		7.56		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-19.4		Total Delay for Signalled Lanes (pcuHr)		109.61		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-19.4		Total Delay Over All Lanes(pcuHr)		127.53					

**Stage Sequence Diagram**

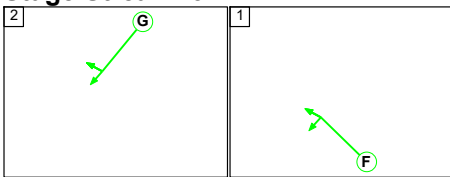
**Stage Stream: 1**



**Stage Stream: 2**



**Stage Stream: 3**



**Stage Timings**

**Stage Stream: 1**

Stage	3	1	2
Duration	21	7	13
Change Point	56	26	38

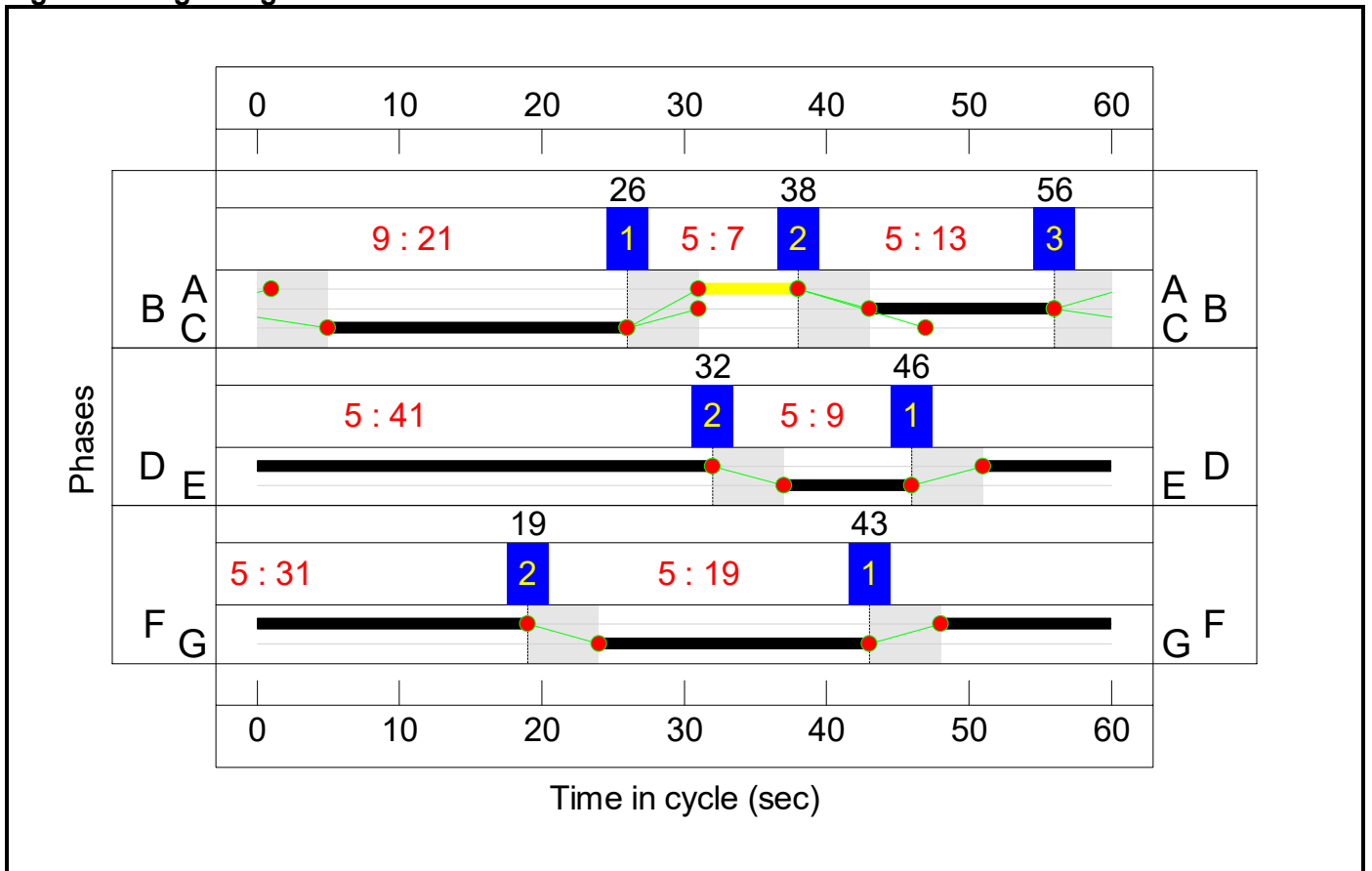
**Stage Stream: 2**

Stage	2	1
Duration	9	41
Change Point	32	46

**Stage Stream: 3**

Stage	2	1
Duration	19	31
Change Point	19	43

Signal Timings Diagram

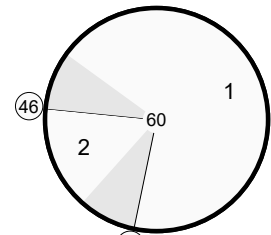


Full Input Data And Results  
**Network Layout Diagram**

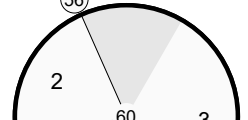
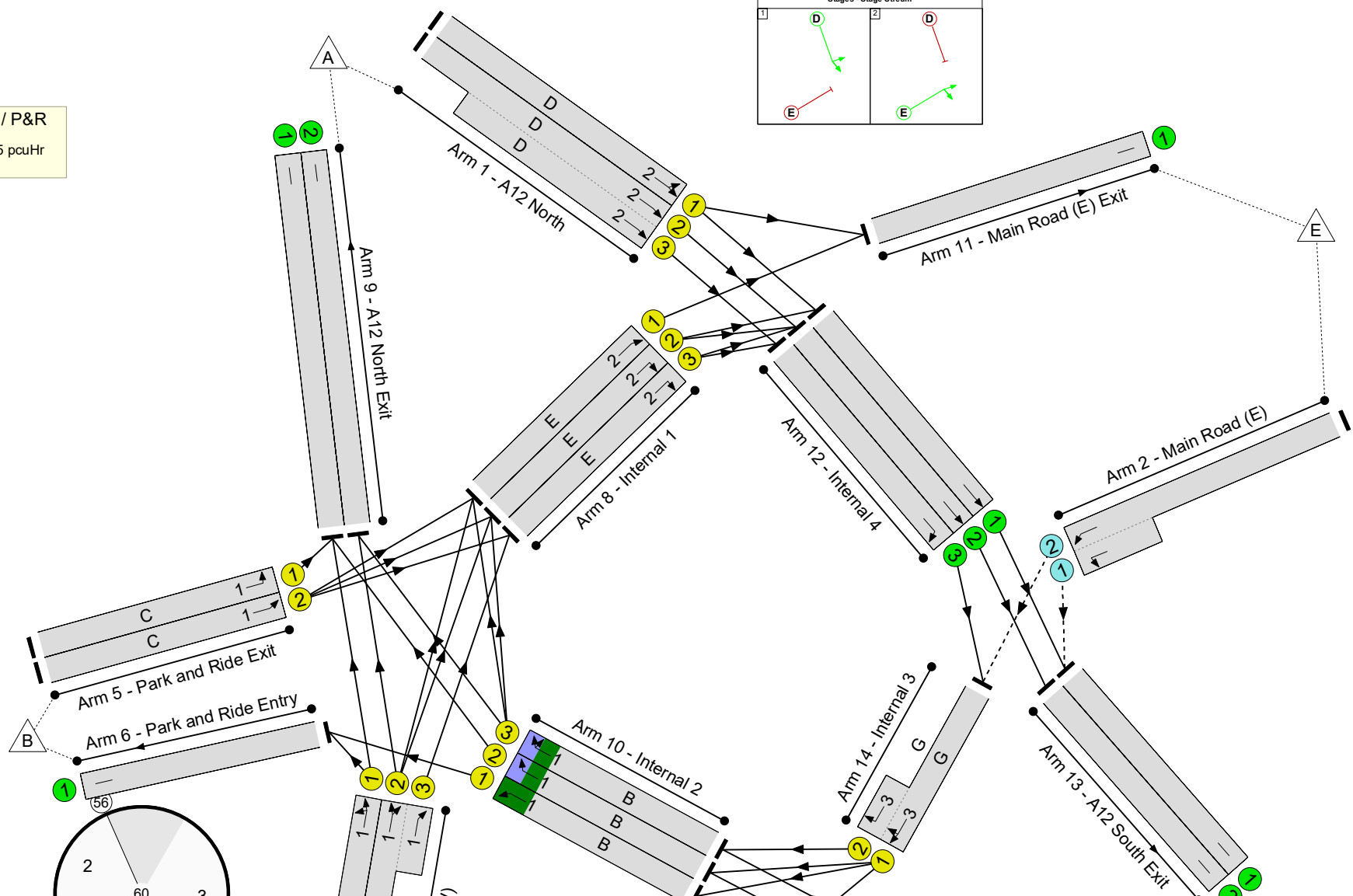
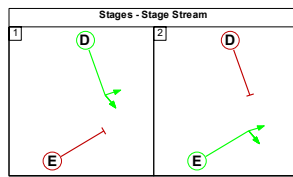


Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 30.3 %  
 Total Traffic Delay: 10.5 pcuHr



C1 - PEED TS32SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>69.1%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>69.1%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	41	-	319	1962	1373	23.2%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	41	-	599	2105:2115	1325+462	33.5 : 33.5%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	40	950:1845	71+638	5.6 : 5.6%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	31	-	497	2070:1910	1054+619	29.7 : 29.7%
3/3	A12 South Ahead	U	3	N/A	F		1	31	-	244	2084	1111	22.0%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	132	2034	271	48.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	323	2175:2175	281+187	69.1 : 69.1%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	21	-	0	1995	732	0.0%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	21	-	2	2125	779	0.3%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	9	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	9	-	10	1993	332	3.0%
8/2	Internal 1 Right	U	2	N/A	E		1	9	-	99	2137	356	27.8%
8/3	Internal 1 Right	U	2	N/A	E		1	9	-	131	2127	354	37.0%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	330	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	8	1932	966	0.8%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	316	2066	1033	30.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	245	2066	1033	23.7%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	625	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	625	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	19	-	159	1800:1800	600+4	26.3 : 26.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	80	0	0	7.1	3.4	0.0	10.5	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	80	0	0	7.1	3.4	0.0	10.5	-	-	-	-
1/1	319	319	-	-	-	0.3	0.2	-	0.4	4.9	1.9	0.2	2.0
1/2+1/3	599	599	-	-	-	0.5	0.3	-	0.8	4.8	2.7	0.3	3.0
2/2+2/1	40	40	80	0	0	0.0	0.0	-	0.0	2.7	0.0	0.0	0.0
3/2+3/1	497	497	-	-	-	1.0	0.2	-	1.3	9.1	2.8	0.2	3.0
3/3	244	244	-	-	-	0.5	0.1	-	0.6	9.5	2.1	0.1	2.2
4/1	132	132	-	-	-	0.9	0.5	-	1.4	37.0	2.0	0.5	2.5
4/2+4/3	323	323	-	-	-	2.2	1.1	-	3.3	36.7	3.1	1.1	4.2
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	2	2	-	-	-	0.0	0.0	-	0.0	14.7	0.0	0.0	0.0
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.1	0.0	-	0.1	40.9	0.2	0.0	0.2
8/2	99	99	-	-	-	0.0	0.2	-	0.2	8.7	0.2	0.2	0.4
8/3	131	131	-	-	-	0.1	0.3	-	0.3	9.4	0.7	0.3	0.9
9/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	330	330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	8	8	-	-	-	0.0	0.0	-	0.0	7.5	0.0	0.0	0.0
10/2	316	316	-	-	-	0.5	0.2	-	0.7	7.7	1.1	0.2	1.3
10/3	245	245	-	-	-	0.3	0.2	-	0.5	7.4	0.9	0.2	1.0
11/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	625	625	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

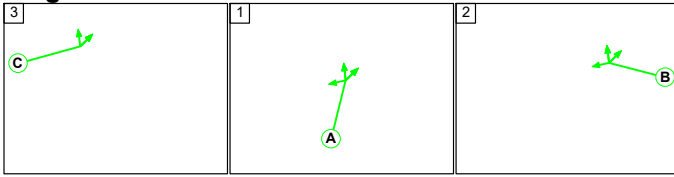
13/2	625	625	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	159	159	-	-	-	0.6	0.2	-	0.8	17.8	2.1	0.2	2.2
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		30.3	Total Delay for Signalled Lanes (pcuHr)		5.85	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		143.5	Total Delay for Signalled Lanes (pcuHr)		1.93	Cycle Time (s)		60			
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		202.9	Total Delay for Signalled Lanes (pcuHr)		2.68	Cycle Time (s)		60			
		PRC Over All Lanes (%)		30.3	Total Delay Over All Lanes(pcuHr)		10.49						

Full Input Data And Results

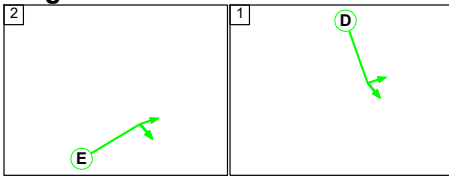
Scenario 32: '2034 Operational Forecast 7-8AM' (FG27: '34OP\_7-8AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

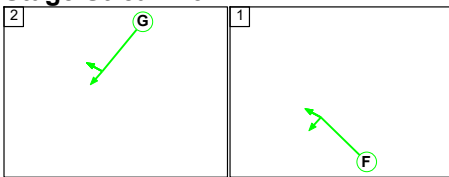
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	15	19
Change Point	10	26	46

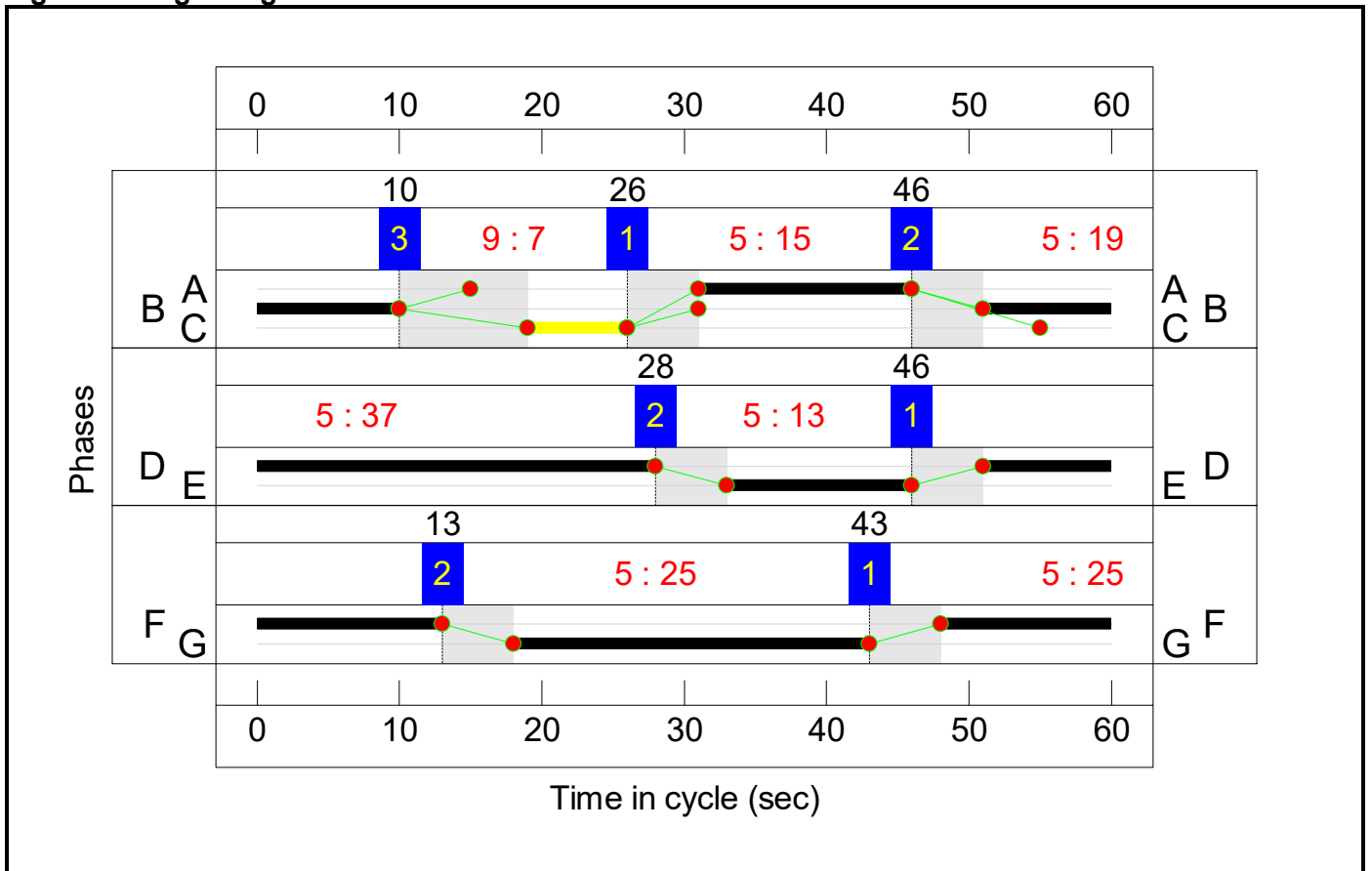
Stage Stream: 2

Stage	2	1
Duration	13	37
Change Point	28	46

Stage Stream: 3

Stage	2	1
Duration	25	25
Change Point	13	43

Signal Timings Diagram

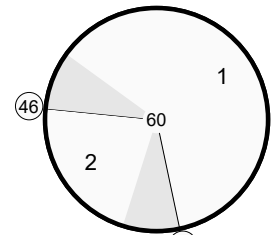




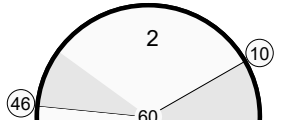
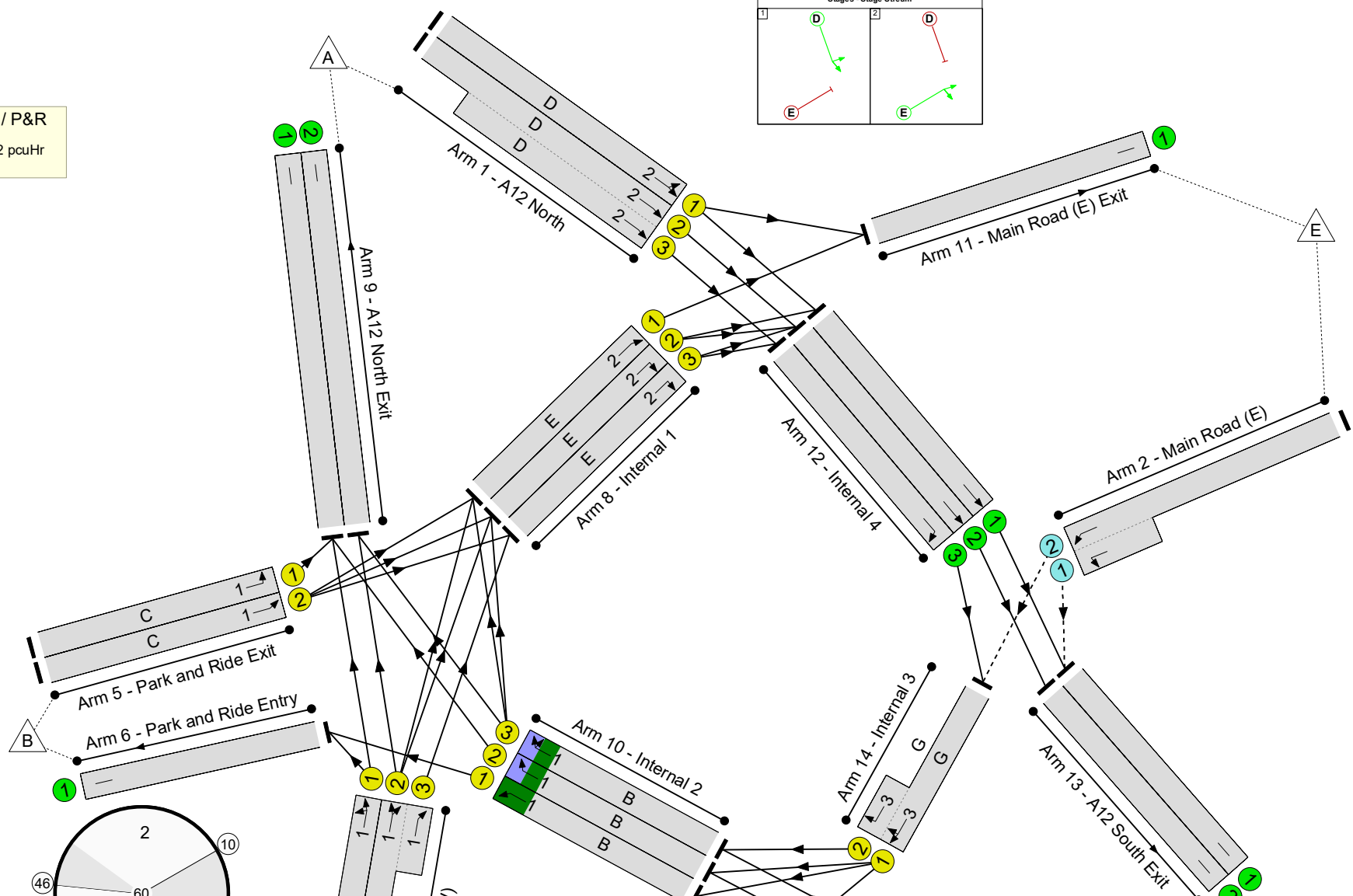
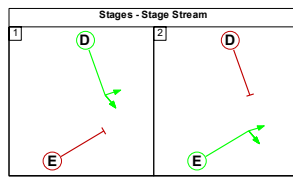
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: 5.1 %  
 Total Traffic Delay: 30.2 pcuHr



C1 - PEED TSC SE 28 ES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>85.7%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>85.7%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	37	-	555	1962	1243	44.7%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	37	-	1002	2105:2115	1191+588	56.3 : 56.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	91	950:1845	63+572	14.3 : 14.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	25	-	1095	2070:1908	897+488	79.0 : 79.0%
3/3	A12 South Ahead	U	3	N/A	F		1	25	-	652	2084	903	72.2%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	15	-	423	2032	542	78.1%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	15	-	672	2175:2175	441+343	85.7 : 85.7%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	3	1995	266	1.1%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	3	2125	283	1.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	59	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	13	-	74	1993	465	15.9%
8/2	Internal 1 Right	U	2	N/A	E		1	13	-	273	2137	499	54.7%
8/3	Internal 1 Right	U	2	N/A	E		1	13	-	295	2127	496	59.4%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1122	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	697	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	19	-	46	1932	1095	4.2%
10/2	Internal 2 Right	U	1	N/A	B		1	19	-	709	2066	1171	60.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	19	-	664	2066	1171	56.7%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	113	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	652	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1103	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	734	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1103	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	25	-	340	1800:1800	771+28	42.5 : 42.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>182</b>	<b>0</b>	<b>0</b>	<b>18.1</b>	<b>12.1</b>	<b>0.0</b>	<b>30.2</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>182</b>	<b>0</b>	<b>0</b>	<b>18.1</b>	<b>12.1</b>	<b>0.0</b>	<b>30.2</b>	-	-	-	-
1/1	555	555	-	-	-	0.9	0.4	-	1.3	8.2	4.6	0.4	5.0
1/2+1/3	1002	1002	-	-	-	1.5	0.6	-	2.2	7.9	6.0	0.6	6.6
2/2+2/1	91	91	182	0	0	0.0	0.1	-	0.1	3.4	0.0	0.1	0.1
3/2+3/1	1095	1095	-	-	-	4.2	1.9	-	6.0	19.9	10.0	1.9	11.9
3/3	652	652	-	-	-	2.5	1.3	-	3.8	21.1	8.9	1.3	10.2
4/1	423	423	-	-	-	2.4	1.7	-	4.1	35.1	6.5	1.7	8.2
4/2+4/3	672	672	-	-	-	3.6	2.8	-	6.5	34.7	7.2	2.8	10.1
5/1	3	3	-	-	-	0.0	0.0	-	0.0	29.8	0.0	0.0	0.0
5/2	3	3	-	-	-	0.0	0.0	-	0.0	29.4	0.0	0.0	0.0
6/1	59	59	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	74	74	-	-	-	0.3	0.1	-	0.4	18.0	0.6	0.1	0.7
8/2	273	273	-	-	-	0.7	0.6	-	1.3	17.2	1.0	0.6	1.6
8/3	295	295	-	-	-	0.7	0.7	-	1.4	17.7	1.0	0.7	1.7
9/1	1122	1122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	46	46	-	-	-	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/2	709	709	-	-	-	0.0	0.8	-	0.8	3.9	0.0	0.8	0.8
10/3	664	664	-	-	-	0.0	0.7	-	0.7	3.7	0.1	0.7	0.8
11/1	113	113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	652	652	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1103	1103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	734	734	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

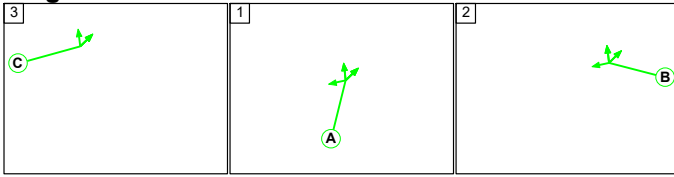
13/2	1103	1103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	340	340	-	-	-	1.1	0.4	-	1.5	15.9	4.5	0.4	4.9
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		5.1		Total Delay for Signalled Lanes (pcuHr)		12.14		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		51.4		Total Delay for Signalled Lanes (pcuHr)		6.58		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		13.9		Total Delay for Signalled Lanes (pcuHr)		11.37		Cycle Time (s)		60	
		PRC Over All Lanes (%)		5.1		Total Delay Over All Lanes(pcuHr)		30.17					

Full Input Data And Results

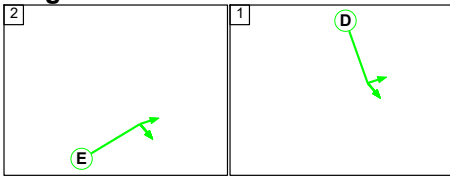
Scenario 33: '2034 Operational Forecast 8-9AM' (FG28: '34OP\_8-9AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

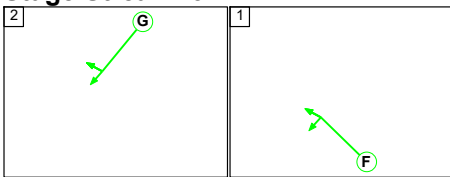
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	7	21	13
Change Point	39	55	21

Stage Stream: 2

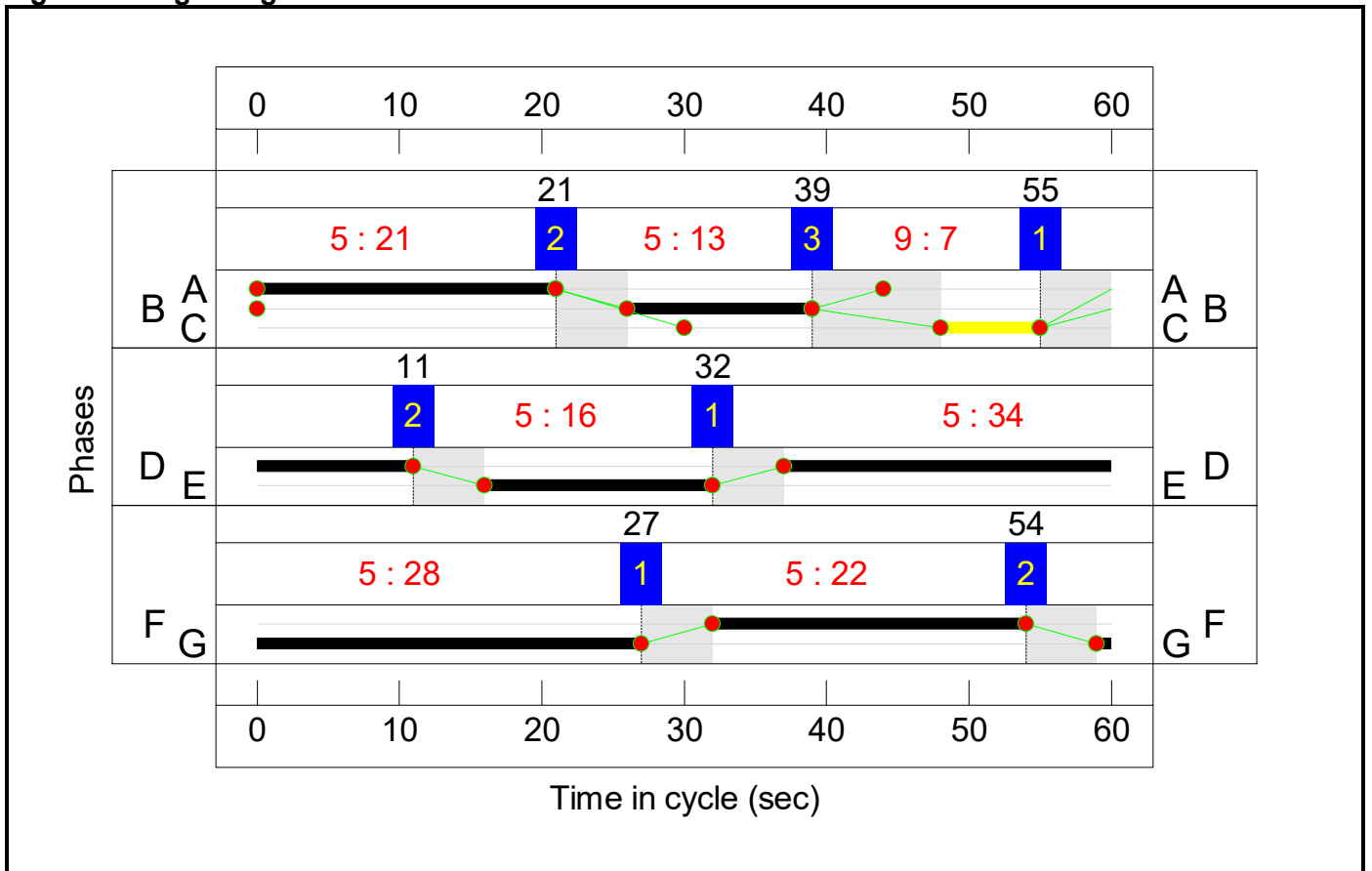
Stage	2	1
Duration	16	34
Change Point	11	32

Stage Stream: 3

Stage	2	1
Duration	28	22
Change Point	54	27



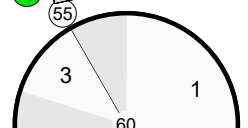
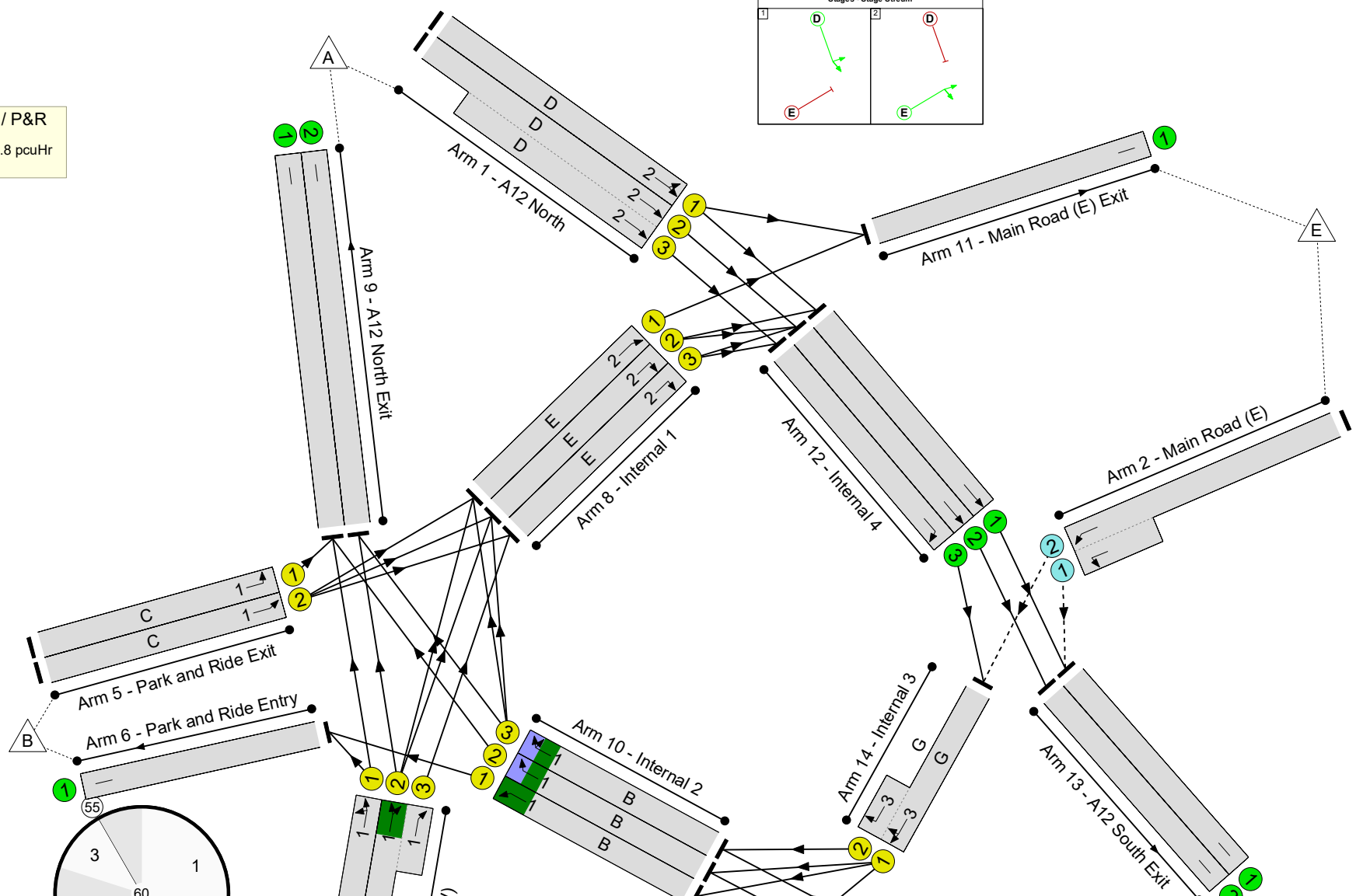
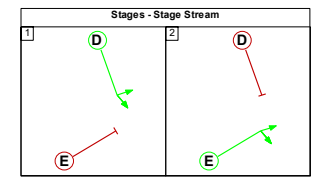
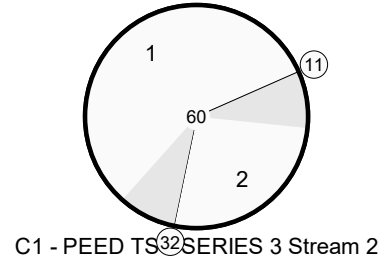
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -18.5 %  
 Total Traffic Delay: 118.8 pcuHr



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	106.6%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	106.6%
1/1	A12 North Left Ahead	U	2	N/A	D		1	34	-	663	1963	1145	57.9%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	34	-	1221	2105:2115	1109+645	69.6 : 69.6%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	196	950:1845	241+535	26.1 : 24.9%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	22	-	1305	2070:1908	794+486	102.0 : 102.0%
3/3	A12 South Ahead	U	3	N/A	F		1	22	-	804	2084	799	100.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	21	-	378	2033	745	50.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	21	-	975	2175:2175	534+381	106.6 : 106.6%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	7	-	7	1995	266	2.6%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	7	-	14	2125	283	4.9%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	16	-	236	1993	565	39.7%
8/2	Internal 1 Right	U	2	N/A	E		1	16	-	399	2137	605	61.9%
8/3	Internal 1 Right	U	2	N/A	E		1	16	-	407	2127	603	63.3%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1203	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%

Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	13	-	59	1932	902	6.5%
10/2	Internal 2 Right	U	1	N/A	B		1	13	-	825	2066	964	84.0%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	13	-	813	2066	964	83.8%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	831	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1377	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	450	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	964	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1377	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	28	-	513	1800:1800	870+16	57.9 : 57.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>392</b>	<b>0</b>	<b>0</b>	<b>30.7</b>	<b>88.1</b>	<b>0.0</b>	<b>118.8</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>392</b>	<b>0</b>	<b>0</b>	<b>30.7</b>	<b>88.1</b>	<b>0.0</b>	<b>118.8</b>	-	-	-	-
1/1	663	663	-	-	-	1.4	0.7	-	2.1	11.6	6.8	0.7	7.5
1/2+1/3	1221	1221	-	-	-	2.6	1.1	-	3.7	11.0	8.4	1.1	9.5
2/2+2/1	196	196	392	0	0	0.1	0.2	-	0.2	4.1	0.3	0.2	0.5
3/2+3/1	1305	1290	-	-	-	6.6	25.4	-	32.0	88.2	13.7	25.4	39.1
3/3	804	799	-	-	-	4.2	15.5	-	19.8	88.5	13.5	15.5	29.0
4/1	378	378	-	-	-	1.6	0.5	-	2.1	19.7	4.8	0.5	5.3
4/2+4/3	975	914	-	-	-	6.5	37.0	-	43.5	160.5	15.6	37.0	52.5
5/1	7	7	-	-	-	0.0	0.0	-	0.1	29.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	29.6	0.2	0.0	0.2
6/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	224	224	-	-	-	0.6	0.3	-	1.0	15.7	3.1	0.3	3.4
8/2	375	375	-	-	-	0.7	0.8	-	1.5	14.5	6.0	0.8	6.8
8/3	382	382	-	-	-	0.6	0.9	-	1.4	13.6	5.4	0.9	6.3
9/1	1188	1188	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	59	59	-	-	-	0.1	0.0	-	0.1	6.7	0.2	0.0	0.3
10/2	810	810	-	-	-	2.0	2.5	-	4.6	20.3	3.9	2.5	6.5
10/3	808	808	-	-	-	2.0	2.5	-	4.5	20.2	3.9	2.5	6.4
11/1	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	819	819	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1340	1340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	952	952	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

### Full Input Data And Results

13/2	1340	1340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	513	513	-	-	-	1.5	0.7	-	2.2	15.2	7.3	0.7	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		-18.5		Total Delay for Signalled Lanes (pcuHr)		54.93		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		29.3		Total Delay for Signalled Lanes (pcuHr)		9.80		Cycle Time (s)		60	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-13.3		Total Delay for Signalled Lanes (pcuHr)		53.89		Cycle Time (s)		60	
		PRC Over All Lanes (%)		-18.5		Total Delay Over All Lanes(pcuHr)		118.85					

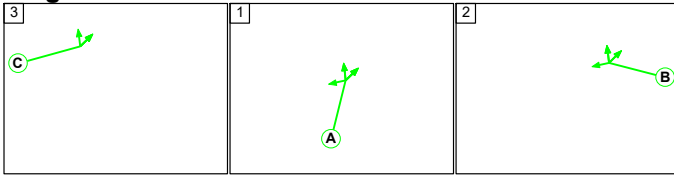


Full Input Data And Results

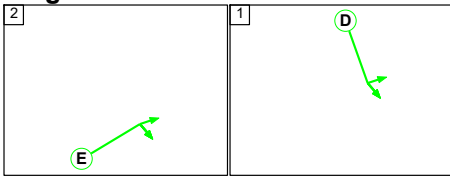
Scenario 34: '2034 Operational Forecast 3-4PM' (FG29: '34OP\_3-4PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

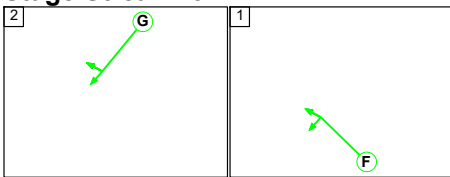
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	15	7	34
Change Point	21	45	57

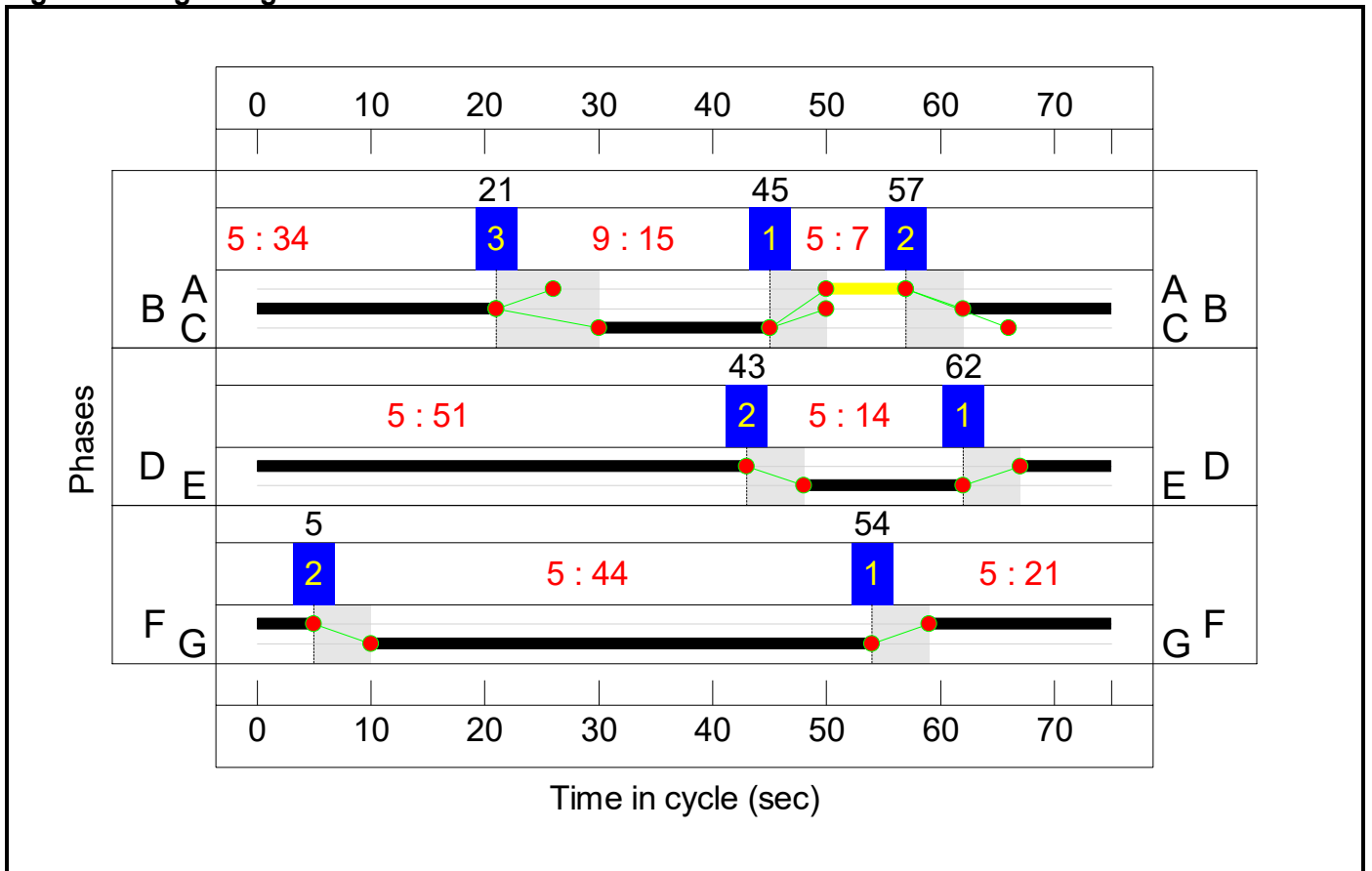
Stage Stream: 2

Stage	2	1
Duration	14	51
Change Point	43	62

Stage Stream: 3

Stage	2	1
Duration	44	21
Change Point	5	54

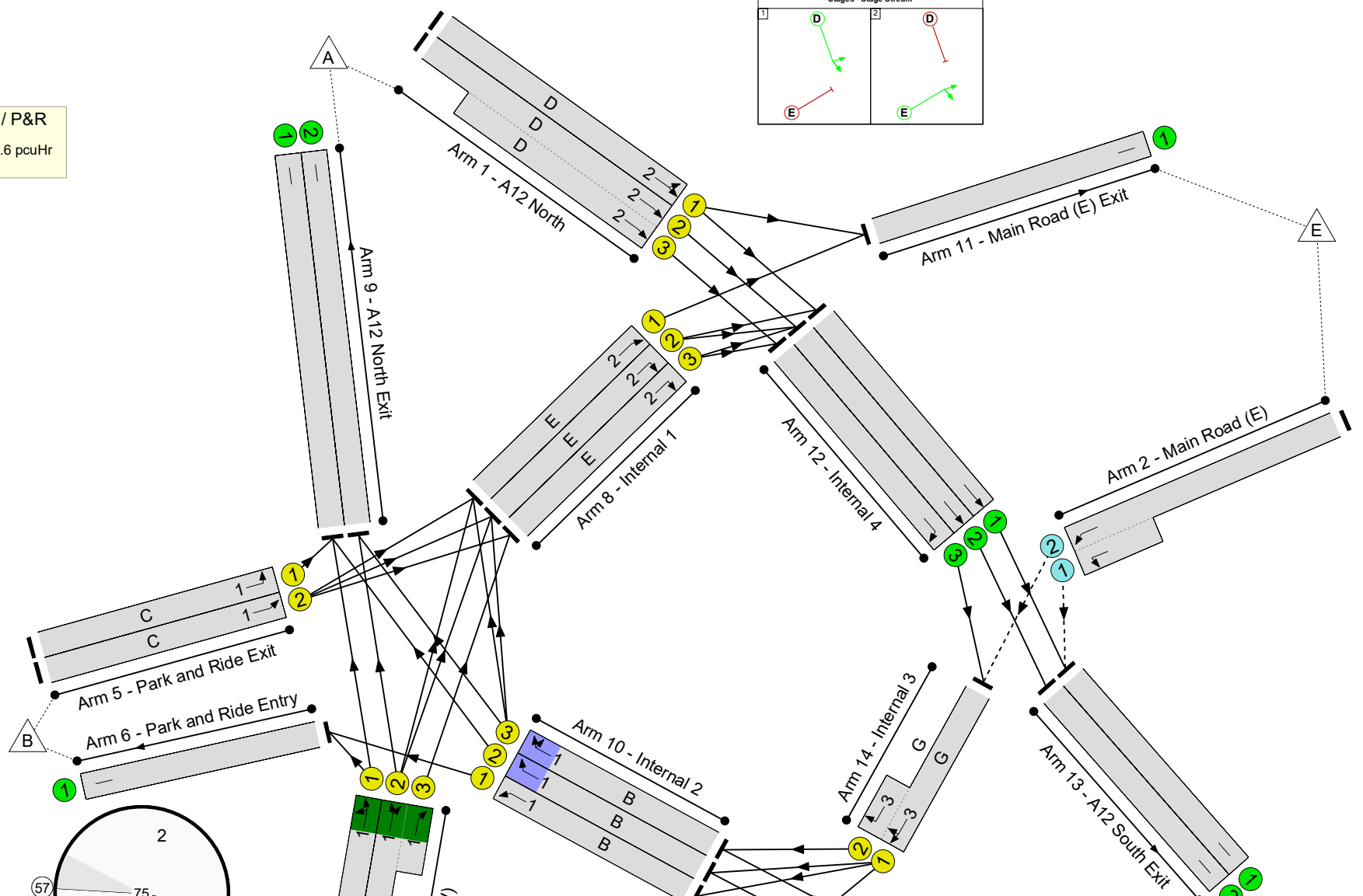
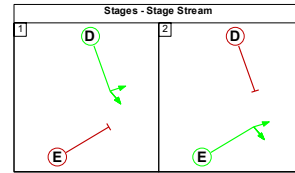
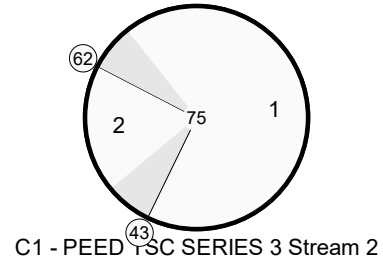
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -42.9 %  
 Total Traffic Delay: 285.6 pcuHr



## Full Input Data And Results

Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>128.6%</b>
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>128.6%</b>
1/1	A12 North Left Ahead	U	2	N/A	D		1	51	-	654	1965	1362	48.0%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	51	-	1089	2105:2115	1208+629	59.3 : 59.3%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	417	950:1845	264+169	96.3 : 96.3%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	21	-	1435	2070:1910	607+560	128.6 : 116.7%
3/3	A12 South Ahead	U	3	N/A	F		1	21	-	780	2084	611	127.6%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	386	2035	597	64.7%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	657	2175:2175	431+397	79.3 : 79.3%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	15	-	4	1995	426	0.9%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	15	-	14	2125	453	3.1%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	4	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1266	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	14	-	204	1993	399	43.2%
8/2	Internal 1 Right	U	2	N/A	E		1	14	-	290	2137	427	67.9%
8/3	Internal 1 Right	U	2	N/A	E		1	14	-	324	2127	425	76.2%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	1181	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	635	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	34	-	4	1932	902	0.4%
10/2	Internal 2 Right	U	1	N/A	B		1	34	-	791	2066	964	64.0%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	34	-	782	2066	964	63.6%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	210	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	793	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	44	-	628	1800:1800	1080+3	58.0 : 58.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>834</b>	<b>0</b>	<b>0</b>	<b>46.2</b>	<b>239.4</b>	<b>0.0</b>	<b>285.6</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>834</b>	<b>0</b>	<b>0</b>	<b>46.2</b>	<b>239.4</b>	<b>0.0</b>	<b>285.6</b>	-	-	-	-
1/1	654	654	-	-	-	1.0	0.5	-	1.4	7.8	6.2	0.5	6.6
1/2+1/3	1089	1089	-	-	-	1.5	0.7	-	2.2	7.4	6.8	0.7	7.5
2/2+2/1	417	417	834	0	0	0.5	7.0	-	7.5	64.5	5.1	7.0	12.1
3/2+3/1	1435	1167	-	-	-	20.0	136.4	-	156.4	392.4	26.2	136.4	162.6
3/3	780	611	-	-	-	12.9	86.6	-	99.5	459.4	21.5	86.6	108.1
4/1	386	386	-	-	-	2.5	0.9	-	3.4	31.6	7.0	0.9	7.9
4/2+4/3	657	657	-	-	-	4.1	1.9	-	6.0	32.8	8.5	1.9	10.3
5/1	4	4	-	-	-	0.0	0.0	-	0.0	27.9	0.1	0.0	0.1
5/2	14	14	-	-	-	0.1	0.0	-	0.1	27.7	0.2	0.0	0.2
6/1	4	4	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	172	172	-	-	-	1.5	0.4	-	1.9	38.9	3.4	0.4	3.7
8/2	290	290	-	-	-	0.4	1.0	-	1.5	18.3	5.5	1.0	6.5
8/3	324	324	-	-	-	0.6	1.6	-	2.1	23.5	6.2	1.6	7.8
9/1	1007	1007	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	4	4	-	-	-	0.0	0.0	-	0.0	11.8	0.0	0.0	0.0
10/2	617	617	-	-	-	0.0	0.9	-	0.9	5.4	0.2	0.9	1.0
10/3	613	613	-	-	-	0.0	0.9	-	0.9	5.2	0.1	0.9	0.9
11/1	178	178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1184	1184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	374	374	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	956	956	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0



Full Input Data And Results

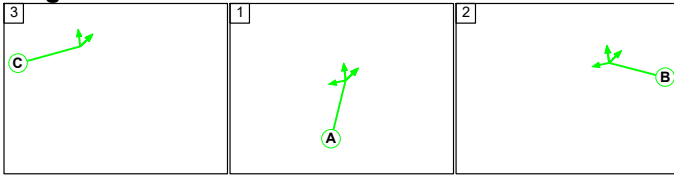
13/2	1184	1184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	628	628	-	-	-	1.0	0.7	-	1.7	10.0	7.1	0.7	7.8
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		13.5		Total Delay for Signalled Lanes (pcuHr)		11.33		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		18.2		Total Delay for Signalled Lanes (pcuHr)		9.11		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-42.9		Total Delay for Signalled Lanes (pcuHr)		257.68		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-42.9		Total Delay Over All Lanes(pcuHr)		285.60					

Full Input Data And Results

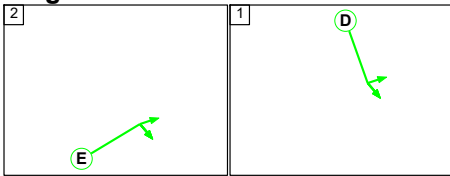
Scenario 35: '2034 Operational Forecast 5-6PM' (FG30: '34OP\_5-6PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

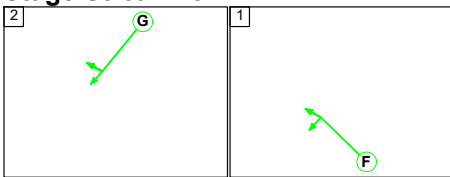
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	3	1	2
Duration	9	7	40
Change Point	24	42	54

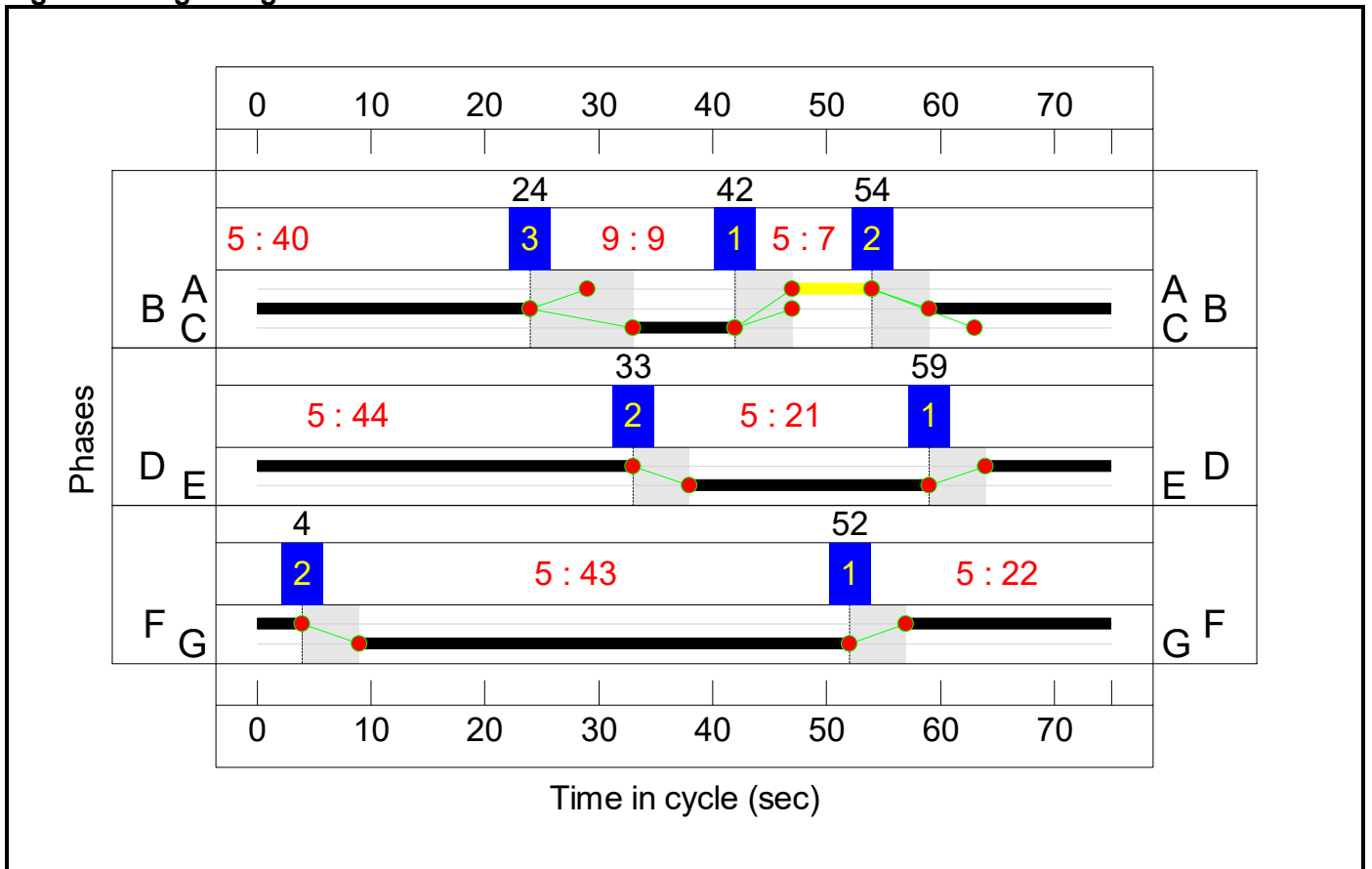
Stage Stream: 2

Stage	2	1
Duration	21	44
Change Point	33	59

Stage Stream: 3

Stage	2	1
Duration	43	22
Change Point	4	52

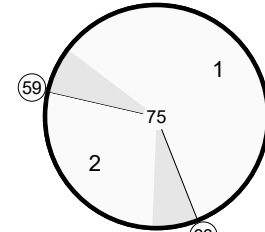
Signal Timings Diagram



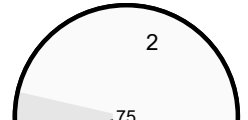
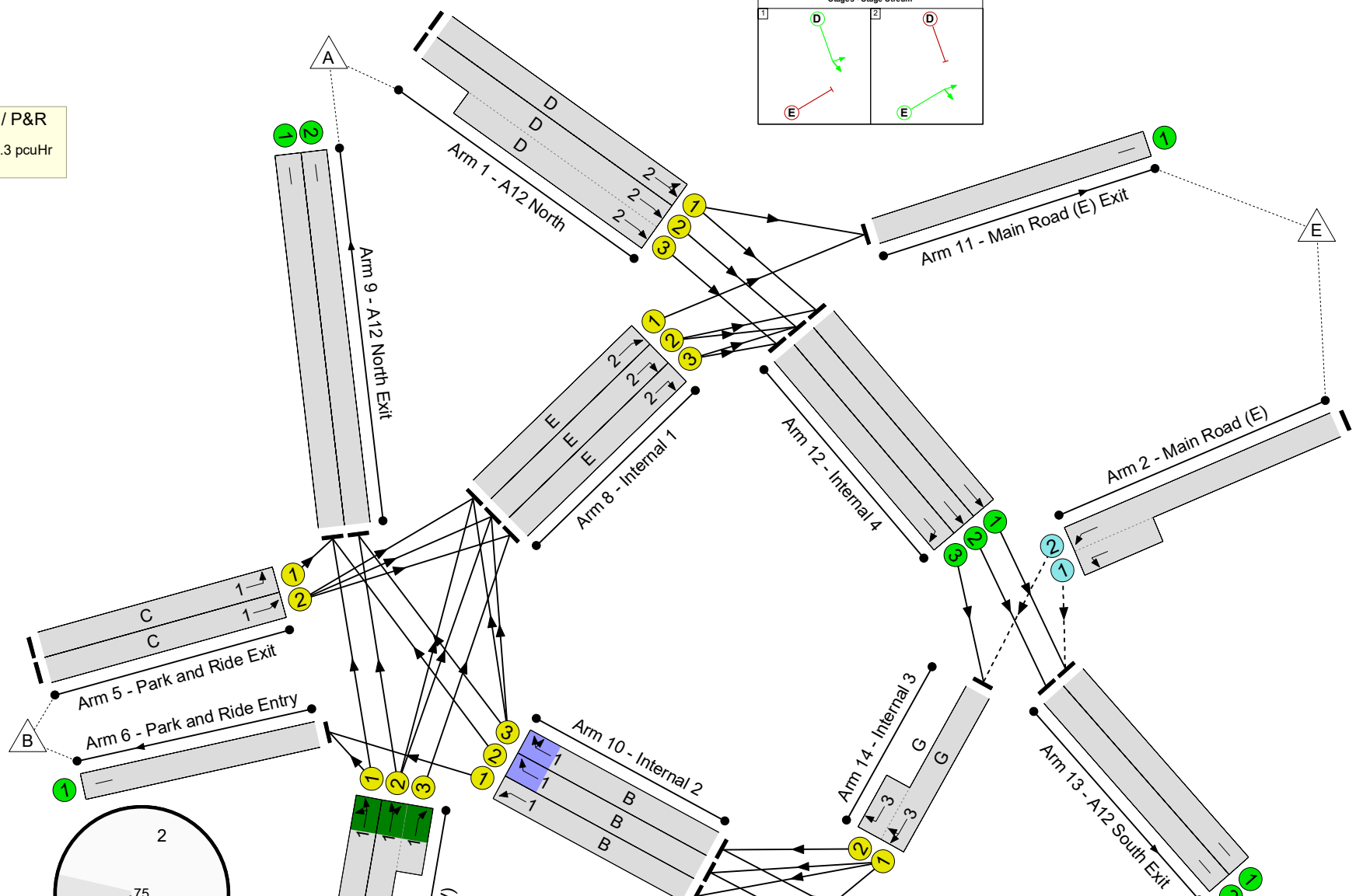
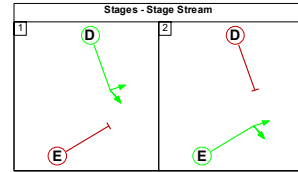
Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J25 - A12 / Main Road / P&R  
 PRC: -69.0 %  
 Total Traffic Delay: 446.3 pcuHr



C1 - PEED TSC SERIES 3 Stream 2



## Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	152.1%
J25 - A12 / Main Road / P&R	-	-	N/A	-	-		-	-	-	-	-	-	152.1%
1/1	A12 North Left Ahead	U	2	N/A	D		1	44	-	619	1964	1178	52.5%
1/2+1/3	A12 North Ahead	U	2	N/A	D		1	44	-	1050	2105:2115	1071+593	63.1 : 63.1%
2/2+2/1	Main Road (E) Left Ahead	O	N/A	N/A	-		-	-	-	284	950:1845	297+372	42.4 : 42.4%
3/2+3/1	A12 South Left Ahead	U	3	N/A	F		1	22	-	1263	2070:1910	249+586	151.3 : 151.3%
3/3	A12 South Ahead	U	3	N/A	F		1	22	-	972	2084	639	152.1%
4/1	A1214 Main Road (W) Left Ahead	U	1	N/A	A		1	7	-	341	2034	597	57.2%
4/2+4/3	A1214 Main Road (W) Ahead Ahead2	U	1	N/A	A		1	7	-	597	2175:2175	429+403	71.8 : 71.8%
5/1	Park and Ride Exit Left	U	1	N/A	C		1	9	-	22	1995	266	8.3%
5/2	Park and Ride Exit Ahead	U	1	N/A	C		1	9	-	26	2125	283	9.2%
6/1	Park and Ride Entry	U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
7/1	A1214 Main Road Exit	U	N/A	N/A	-		-	-	-	1371	Inf	Inf	0.0%
8/1	Internal 1 Ahead	U	2	N/A	E		1	21	-	218	1993	585	29.1%
8/2	Internal 1 Right	U	2	N/A	E		1	21	-	238	2137	627	37.9%
8/3	Internal 1 Right	U	2	N/A	E		1	21	-	300	2127	624	48.1%
9/1	A12 North Exit	U	N/A	N/A	-		-	-	-	744	Inf	Inf	0.0%
9/2	A12 North Exit	U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%

### Full Input Data And Results

10/1	Internal 2 Ahead	U	1	N/A	B		1	40	-	9	1932	1056	0.6%
10/2	Internal 2 Right	U	1	N/A	B		1	40	-	383	2066	1129	22.6%
10/3	Internal 2 Right Right2	U	1	N/A	B		1	40	-	973	2066	1129	56.7%
11/1	Main Road (E) Exit	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
12/1	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
12/2	Internal 4 Ahead	U	N/A	N/A	-		-	-	-	1094	Inf	Inf	0.0%
12/3	Internal 4 Right	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
13/1	A12 South Exit	U	N/A	N/A	-		-	-	-	880	Inf	Inf	0.0%
13/2	A12 South Exit	U	N/A	N/A	-		-	-	-	1094	Inf	Inf	0.0%
14/1+14/2	Internal 3 Ahead Right	U	3	N/A	G		1	43	-	501	1800:1800	1056+2	47.3 : 47.3%



Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	<b>568</b>	<b>0</b>	<b>0</b>	<b>56.9</b>	<b>389.4</b>	<b>0.0</b>	<b>446.3</b>	-	-	-	-
<b>J25 - A12 / Main Road / P&amp;R</b>	-	-	<b>568</b>	<b>0</b>	<b>0</b>	<b>56.9</b>	<b>389.4</b>	<b>0.0</b>	<b>446.3</b>	-	-	-	-
1/1	619	619	-	-	-	1.5	0.6	-	2.1	12.0	7.4	0.6	7.9
1/2+1/3	1050	1050	-	-	-	2.4	0.9	-	3.3	11.2	8.3	0.9	9.1
2/2+2/1	284	284	568	0	0	0.1	0.4	-	0.5	5.9	0.8	0.4	1.2
3/2+3/1	1263	835	-	-	-	23.1	215.5	-	238.6	680.1	33.0	215.5	248.5
3/3	972	639	-	-	-	21.4	167.9	-	189.3	700.9	32.2	167.9	200.1
4/1	341	341	-	-	-	2.1	0.7	-	2.8	29.5	6.0	0.7	6.6
4/2+4/3	597	597	-	-	-	3.6	1.3	-	4.9	29.5	6.8	1.3	8.0
5/1	22	22	-	-	-	0.2	0.0	-	0.2	36.0	0.4	0.0	0.4
5/2	26	26	-	-	-	0.2	0.1	-	0.3	35.6	0.5	0.1	0.5
6/1	9	9	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1073	1073	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	170	170	-	-	-	0.9	0.2	-	1.1	23.7	2.4	0.2	2.6
8/2	237	237	-	-	-	0.1	0.3	-	0.4	6.0	0.3	0.3	0.6
8/3	300	300	-	-	-	0.1	0.5	-	0.6	6.8	0.3	0.5	0.8
9/1	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	7	7	-	-	-	0.0	0.0	-	0.0	6.4	0.0	0.0	0.0
10/2	255	255	-	-	-	0.0	0.1	-	0.2	2.4	0.1	0.1	0.2
10/3	640	640	-	-	-	0.0	0.7	-	0.7	3.7	0.1	0.7	0.7
11/1	186	186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1094	1094	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/3	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	880	880	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

13/2	1094	1094	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1+14/2	501	501	-	-	-	1.1	0.4	-	1.6	11.4	7.5	0.4	8.0
C1 - PEED TSC SERIES 3		Stream: 1 PRC for Signalled Lanes (%)		25.4		Total Delay for Signalled Lanes (pcuHr)		9.01		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 2 PRC for Signalled Lanes (%)		42.6		Total Delay for Signalled Lanes (pcuHr)		7.41		Cycle Time (s)		75	
C1 - PEED TSC SERIES 3		Stream: 3 PRC for Signalled Lanes (%)		-69.0		Total Delay for Signalled Lanes (pcuHr)		429.45		Cycle Time (s)		75	
		PRC Over All Lanes (%)		-69.0		Total Delay Over All Lanes(pcuHr)		446.33					

<b>Junctions 9</b>
<b>ARCADY 9 - Roundabout Module</b>
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Filename: 2020.07.24\_J26\_Model\_CV\_SENS v16.j9  
 Path: C:\Users\UKVXG007\Desktop\SZC\v16a No FI Sensitivity\J26\_sens\Model  
 Report generation date: 17/12/2020 17:59:09

- »2019 Base Year, 6-7 AM
- »2019 Base Year, 7-8 AM
- »2019 Base Year, 8-9 AM
- »2019 Base Year, 3-4 PM
- »2019 Base Year, 5-6 PM
- »2023 Reference Case, 6-7 AM
- »2023 Reference Case, 7-8 AM
- »2023 Reference Case, 8-9 AM
- »2023 Reference Case, 3-4 PM
- »2023 Reference Case, 5-6 PM
- »2023 Early Years, 6-7 AM
- »2023 Early Years, 7-8 AM
- »2023 Early Years, 8-9 AM
- »2023 Early Years, 3-4 PM
- »2023 Early Years, 5-6 PM
- »2028 Reference Case, 6-7 AM
- »2028 Reference Case, 7-8 AM
- »2028 Reference Case, 8-9 AM
- »2028 Reference Case, 3-4 PM
- »2028 Reference Case, 5-6 PM
- »2028 Peak Construction, 6-7 AM
- »2028 Peak Construction, 7-8 AM
- »2028 Peak Construction, 8-9 AM
- »2028 Peak Construction, 3-4 PM
- »2028 Peak Construction, 5-6 PM
- »2034 Reference Case, 6-7 AM
- »2034 Reference Case, 7-8 AM
- »2034 Reference Case, 8-9 AM
- »2034 Reference Case, 3-4 PM
- »2034 Reference Case, 5-6 PM
- »2034 Operational Led, 6-7 AM
- »2034 Operational Led, 7-8 AM
- »2034 Operational Led, 8-9 AM
- »2034 Operational Led, 3-4 PM
- »2034 Operational Led, 5-6 PM

**Summary of junction performance**

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
<b>2019 Base Year</b>																									
A - A12 North	0.5	2.6	2.35	0.35	A	1.6	2.7	3.92	0.61	A	3.7	11.4	7.64	0.79	A	5.9	29.3	14.63	0.87	B	1.3	1.9	3.49	0.57	A
B - A12 West	0.4	1.5	2.07	0.28	A	2.0	3.9	4.50	0.66	A	2.3	5.0	5.14	0.70	A	7.2	36.7	15.89	0.89	C	2.0	4.0	4.41	0.67	A
C - B1438 East	0.1	0.5	3.55	0.10	A	0.5	1.9	5.89	0.32	A	1.0	3.8	9.54	0.50	A	2.6	14.0	20.46	0.74	C	1.2	2.8	8.17	0.54	A
<b>2023 Reference Case</b>																									
A - A12 North	0.6	2.7	2.40	0.37	A	10.4	55.9	26.08	0.93	D	3.7	11.6	7.75	0.79	A	21.8	85.9	49.71	1.00	E	1.6	2.7	3.92	0.62	A
B - A12 West	0.4	1.5	2.11	0.30	A	13.3	69.6	28.87	0.95	D	3.0	6.3	6.40	0.76	A	26.6	97.7	53.05	1.01	F	2.0	4.1	4.53	0.67	A
C - B1438 East	0.1	0.5	3.74	0.12	A	2.4	10.9	30.23	0.73	D	1.1	4.3	10.47	0.53	B	8.6	37.7	63.23	0.95	F	1.5	3.2	9.84	0.80	A
<b>2023 Early Years</b>																									
A - A12 North	0.6	2.7	2.42	0.37	A	78.2	147.8	194.78	1.11	F	52.1	124.9	93.47	1.06	F	20.8	84.1	48.33	0.99	E	1.7	3.0	4.18	0.63	A
B - A12 West	0.5	2.4	2.32	0.35	A	151.2	200.0	330.14	1.19	F	53.9	127.6	94.07	1.06	F	24.8	94.2	51.11	1.00	F	2.0	3.9	4.49	0.67	A
C - B1438 East	0.1	0.5	3.78	0.12	A	12.0	46.6	140.55	1.00	F	9.1	34.9	86.70	0.96	F	8.4	37.1	61.58	0.94	F	1.6	3.6	10.51	0.62	B
<b>2028 Reference Case</b>																									
A - A12 North	0.6	2.7	2.43	0.38	A	38.8	104.1	85.72	1.04	F	67.2	139.9	119.36	1.08	F	28.6	95.6	61.79	1.02	F	9.5	52.3	22.56	0.93	C
B - A12 West	0.4	1.7	2.15	0.31	A	58.0	130.9	102.94	1.06	F	72.9	147.8	120.90	1.08	F	34.6	106.9	65.96	1.03	F	10.7	58.6	23.58	0.94	C
C - B1438 East	0.1	0.5	3.80	0.12	A	7.3	28.1	87.26	0.94	F	12.0	41.4	107.57	1.00	F	11.4	44.4	77.68	0.98	F	5.3	28.4	33.99	0.87	D
<b>2028 Peak Construction</b>																									
A - A12 North	0.6	2.7	2.45	0.38	A	80.2	149.7	203.35	1.12	F	55.8	128.9	98.47	1.06	F	28.1	93.6	62.80	1.02	F	2.0	2.9	4.82	0.66	A
B - A12 West	0.7	2.6	2.50	0.40	A	163.4	200.0	358.45	1.21	F	56.6	130.5	97.65	1.06	F	34.8	106.1	67.77	1.03	F	2.4	4.1	5.43	0.71	A
C - B1438 East	0.2	0.5	3.84	0.13	A	12.2	47.1	144.03	1.01	F	10.7	39.2	94.27	0.98	F	10.4	40.8	77.05	0.97	F	1.7	4.9	11.40	0.63	B
<b>2034 Reference Case</b>																									
A - A12 North	0.7	2.6	2.50	0.40	A	116.4	188.4	297.40	1.17	F	89.2	160.7	158.04	1.11	F	21.7	85.8	49.59	1.00	E	1.8	3.4	4.25	0.65	A
B - A12 West	0.5	2.0	2.21	0.33	A	178.2	200.0	423.05	1.23	F	86.6	158.1	154.09	1.11	F	28.3	101.8	53.71	1.01	F	2.3	5.1	4.80	0.70	A
C - B1438 East	0.1	0.5	3.62	0.08	A	9.9	41.6	153.86	0.99	F	15.1	45.5	134.35	1.03	F	11.2	46.2	70.15	0.97	F	1.3	3.5	9.58	0.57	A
<b>2034 Operational Led</b>																									
A - A12 North	0.7	2.6	2.50	0.40	A	101.8	172.3	271.63	1.16	F	88.2	159.8	156.61	1.11	F	21.8	86.0	49.85	1.00	E	1.8	3.4	4.26	0.65	A
B - A12 West	0.5	2.0	2.21	0.33	A	177.7	200.0	422.30	1.23	F	95.9	169.6	160.01	1.11	F	28.5	101.9	53.95	1.01	F	2.3	5.1	4.80	0.70	A
C - B1438 East	0.1	0.5	3.63	0.08	A	9.7	41.5	151.83	0.99	F	14.0	43.8	128.55	1.02	F	10.9	45.6	68.36	0.97	F	1.3	3.5	9.66	0.57	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

<b>Title</b>	A12 / B1438
<b>Location</b>	52° 52.99"N, 1°17'16.92"E
<b>Site number</b>	26
<b>Date</b>	01/04/2019
<b>Version</b>	
<b>Status</b>	Skeleton Model
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	JV
<b>Description</b>	

## Units

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

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

## Analysis Set Details

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

## 2019 Base Year, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.32	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description
A	A12 North	
B	A12 West	
C	B1438 East	

#### 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
A - A12 North	8.10	10.50	4.8	26.8	78.0	29.0	
B - A12 West	6.70	9.60	28.6	21.5	78.0	35.8	
C - B1438 East	2.90	8.30	25.8	20.6	78.0	42.0	

#### Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
A - A12 North	✓		1680
B - A12 West			
C - B1438 East			

#### Slope / Intercept / Capacity

##### Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A12 North	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	-150
B - A12 West	None		
C - B1438 East	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	-200

##### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.641	2627
B - A12 West	0.614	2649
C - B1438 East	0.481	1583

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

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	760	100.000
B - A12 West		ONE HOUR	✓	600	100.000
C - B1438 East		ONE HOUR	✓	106	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	2	729	29
	B - A12 West	530	0	70
	C - B1438 East	23	83	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		

		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	9	0
	B - A12 West	10	0	7
	C - B1438 East	4	2	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.35	2.35	0.5	2.6	A	697	1046
B - A12 West	0.28	2.07	0.4	1.5	A	551	826
C - B1438 East	0.10	3.55	0.1	0.5	A	97	146

### Main Results for each time segment

#### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	572	143	53	2384	0.240	571	417	0.0	0.3	1.985	A
B - A12 West	452	113	19	2404	0.188	451	610	0.0	0.2	1.842	A
C - B1438 East	80	20	549	1260	0.063	80	74	0.0	0.1	3.050	A

#### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	683	171	63	2377	0.287	683	499	0.3	0.4	2.124	A
B - A12 West	539	135	22	2402	0.225	539	730	0.2	0.3	1.932	A
C - B1438 East	95	24	657	1205	0.079	95	89	0.1	0.1	3.243	A

#### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	837	209	77	2368	0.353	836	611	0.4	0.5	2.349	A
B - A12 West	661	165	27	2399	0.275	660	893	0.3	0.4	2.070	A
C - B1438 East	117	29	804	1130	0.103	117	109	0.1	0.1	3.552	A

#### 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	837	209	77	2368	0.353	837	611	0.5	0.5	2.349	A
B - A12 West	661	165	28	2399	0.275	661	894	0.4	0.4	2.070	A
C - B1438 East	117	29	805	1129	0.103	117	109	0.1	0.1	3.553	A

#### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	683	171	63	2377	0.287	684	499	0.5	0.4	2.127	A
B - A12 West	539	135	23	2402	0.225	540	731	0.4	0.3	1.933	A
C - B1438 East	95	24	658	1204	0.079	95	89	0.1	0.1	3.245	A

#### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	572	143	53	2384	0.240	573	418	0.4	0.3	1.987	A
B - A12 West	452	113	19	2404	0.188	452	612	0.3	0.2	1.846	A
C - B1438 East	80	20	551	1259	0.063	80	75	0.1	0.1	3.052	A

### Queue Variation Results for each time segment

#### 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B - A12 West	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - B1438 East	0.07	0.00	0.00	0.07	0.07			N/A	N/A

#### 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B - A12 West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - B1438 East	0.09	0.03	0.26	0.47	0.50			N/A	N/A

#### 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.54	0.03	0.25	0.54	0.54			N/A	N/A
B - A12 West	0.38	0.03	0.25	0.45	0.48			N/A	N/A
C - B1438 East	0.11	0.03	0.26	0.46	0.49			N/A	N/A

#### 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.55	0.03	0.30	1.39	2.55			N/A	N/A
B - A12 West	0.38	0.03	0.33	1.23	1.48			N/A	N/A
C - B1438 East	0.11	0.00	0.00	0.11	0.11			N/A	N/A

#### 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker

<b>A - A12 North</b>	0.40	0.00	0.00	0.40	0.40			N/A	N/A
<b>B - A12 West</b>	0.29	0.00	0.00	0.29	0.29			N/A	N/A
<b>C - B1438 East</b>	0.09	0.00	0.00	0.09	0.09			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
<b>A - A12 North</b>	0.32	0.00	0.00	0.32	0.32			N/A	N/A
<b>B - A12 West</b>	0.23	0.00	0.00	0.23	0.23			N/A	N/A
<b>C - B1438 East</b>	0.07	0.00	0.00	0.07	0.07			N/A	N/A

## 2019 Base Year, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	4.36	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)	Run automatically
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1327	100.000
B - A12 West		ONE HOUR	✓	1436	100.000
C - B1438 East		ONE HOUR	✓	257	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	11	1207	109
B - A12 West	1236	1	199
C - B1438 East	109	147	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	4	4
B - A12 West	8	0	5
C - B1438 East	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.61	3.92	1.6	2.7	A	1218	1827
B - A12 West	0.66	4.50	2.0	3.9	A	1318	1977
C - B1438 East	0.32	5.89	0.5	1.9	A	236	354

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	999	250	151	2425	0.412	996	1018	0.0	0.7	2.516	A
B - A12 West	1081	270	91	2406	0.449	1078	1017	0.0	0.8	2.703	A
C - B1438 East	193	48	915	1103	0.175	193	232	0.0	0.2	3.949	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1193	298	180	2406	0.496	1192	1218	0.7	1.0	2.962	A
B - A12 West	1291	323	109	2396	0.539	1290	1217	0.8	1.2	3.250	A
C - B1438 East	231	58	1095	1015	0.228	231	277	0.2	0.3	4.586	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1461	365	221	2380	0.614	1459	1490	1.0	1.6	3.898	A
B - A12 West	1581	395	133	2382	0.664	1578	1489	1.2	1.9	4.461	A
C - B1438 East	283	71	1340	895	0.316	282	340	0.3	0.5	5.871	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1461	365	221	2380	0.614	1461	1493	1.6	1.6	3.919	A
B - A12 West	1581	395	133	2381	0.664	1581	1492	1.9	2.0	4.497	A
C - B1438 East	283	71	1342	894	0.317	283	340	0.5	0.5	5.892	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1193	298	181	2406	0.496	1195	1222	1.6	1.0	2.982	A
B - A12 West	1291	323	109	2395	0.539	1294	1221	2.0	1.2	3.279	A
C - B1438 East	231	58	1098	1014	0.228	232	278	0.5	0.3	4.608	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	999	250	152	2425	0.412	1000	1022	1.0	0.7	2.530	A
B - A12 West	1081	270	91	2406	0.449	1083	1021	1.2	0.8	2.722	A
C - B1438 East	193	48	919	1102	0.176	194	233	0.3	0.2	3.966	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.81	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.98	0.06	0.71	1.89	2.69			N/A	N/A
B - A12 West	1.16	0.05	0.56	2.68	3.91			N/A	N/A
C - B1438 East	0.29	0.00	0.00	0.29	0.29			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.57	0.03	0.26	1.57	1.57			N/A	N/A
B - A12 West	1.95	0.03	0.26	1.95	1.95			N/A	N/A
C - B1438 East	0.46	0.03	0.25	0.46	0.48			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.58	0.03	0.26	1.58	1.58			N/A	N/A
B - A12 West	1.96	0.03	0.26	1.96	1.96			N/A	N/A
C - B1438 East	0.46	0.03	0.32	1.41	1.87			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.51	1.02	1.32	1.32			N/A	N/A
B - A12 West	1.18	0.23	1.12	1.71	1.94			N/A	N/A
C - B1438 East	0.30	0.00	0.00	0.30	0.30			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.09	0.82	1.38	1.45			N/A	N/A
B - A12 West	0.82	0.07	0.80	1.18	1.66			N/A	N/A
C - B1438 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A

## 2019 Base Year, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	6.73	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)	Run automatically
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1616	100.000
B - A12 West		ONE HOUR	✓	1503	100.000
C - B1438 East		ONE HOUR	✓	342	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	13	1401	202
B - A12 West	1170	2	331
C - B1438 East	152	190	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	8	6	4
B - A12 West	8	0	5
C - B1438 East	4	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.79	7.64	3.7	11.4	A	1483	2224
B - A12 West	0.70	5.14	2.3	5.0	A	1379	2069
C - B1438 East	0.50	9.54	1.0	3.8	A	314	471

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1217	304	250	2324	0.524	1212	1002	0.0	1.1	3.228	A
B - A12 West	1132	283	124	2390	0.473	1128	1195	0.0	0.9	2.844	A
C - B1438 East	257	64	1062	995	0.259	256	400	0.0	0.3	4.860	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1453	363	299	2292	0.634	1450	1199	1.1	1.7	4.262	A
B - A12 West	1351	338	148	2375	0.569	1350	1430	0.9	1.3	3.503	A
C - B1438 East	307	77	1271	894	0.344	307	478	0.3	0.5	6.122	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1779	445	366	2250	0.791	1772	1466	1.7	3.6	7.409	A
B - A12 West	1655	414	181	2356	0.702	1651	1746	1.3	2.3	5.076	A
C - B1438 East	377	94	1552	757	0.497	375	585	0.5	1.0	9.373	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1779	445	367	2249	0.791	1779	1470	3.6	3.7	7.642	A
B - A12 West	1655	414	182	2355	0.703	1655	1754	2.3	2.3	5.136	A
C - B1438 East	377	94	1559	754	0.500	376	587	1.0	1.0	9.538	A

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1453	363	300	2292	0.634	1461	1204	3.7	1.8	4.371	A
B - A12 West	1351	338	149	2375	0.569	1355	1440	2.3	1.3	3.544	A
C - B1438 East	307	77	1280	890	0.346	309	481	1.0	0.5	6.224	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1217	304	251	2323	0.524	1219	1007	1.8	1.1	3.271	A
B - A12 West	1132	283	125	2389	0.474	1133	1202	1.3	0.9	2.871	A
C - B1438 East	257	64	1068	993	0.259	258	402	0.5	0.4	4.907	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.89	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.35	0.00	0.00	0.35	0.35			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.04	0.43	4.58	7.73			N/A	N/A
B - A12 West	1.31	0.05	0.48	3.23	4.97			N/A	N/A
C - B1438 East	0.52	0.06	0.59	1.32	1.41			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.64	0.03	0.29	3.64	11.41			N/A	N/A
B - A12 West	2.32	0.03	0.27	2.32	2.32			N/A	N/A
C - B1438 East	0.97	0.03	0.26	0.97	0.97			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.71	0.03	0.27	3.71	3.71			N/A	N/A
B - A12 West	2.34	0.03	0.26	2.34	2.34			N/A	N/A
C - B1438 East	0.99	0.03	0.28	1.04	3.83			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.75	0.07	1.01	4.09	5.86			N/A	N/A
B - A12 West	1.33	0.14	1.17	2.18	2.81			N/A	N/A
C - B1438 East	0.53	0.06	0.61	1.32	1.41			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.04	0.42	2.77	4.54			N/A	N/A
B - A12 West	0.90	0.06	0.72	1.69	2.24			N/A	N/A
C - B1438 East	0.35	0.03	0.29	0.74	1.12			N/A	N/A

## 2019 Base Year, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	15.96	C

#### 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)	Run automatically
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1337	100.000
B - A12 West		ONE HOUR	✓	1511	100.000
C - B1438 East		ONE HOUR	✓	432	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	6	1187	144
	B - A12 West	1255	1	255
	C - B1438 East	189	243	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	5
	B - A12 West	6	0	1
	C - B1438 East	4	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.87	14.63	5.9	29.3	B	1227	1840
B - A12 West	0.89	15.89	7.2	36.7	C	1387	2080
C - B1438 East	0.74	20.46	2.6	14.0	C	396	595

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1007	252	192	2363	0.426	1004	1088	0.0	0.7	2.643	A
B - A12 West	1138	284	146	2423	0.470	1134	1074	0.0	0.9	2.787	A
C - B1438 East	325	81	896	1096	0.297	324	299	0.0	0.4	4.650	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	230	2340	0.514	1201	1302	0.7	1.0	3.158	A
B - A12 West	1358	340	175	2405	0.565	1357	1285	0.9	1.3	3.423	A
C - B1438 East	388	97	1072	1009	0.385	388	358	0.4	0.6	5.788	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1472	368	280	1887	0.780	1463	1585	1.0	3.4	8.300	A
B - A12 West	1664	416	213	2037	0.817	1652	1565	1.3	4.2	9.080	A
C - B1438 East	476	119	1306	754	0.631	472	436	0.6	1.6	12.561	B

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1472	368	280	1698	0.867	1462	1585	3.4	5.9	14.627	B
B - A12 West	1664	416	213	1866	0.892	1652	1565	4.2	7.2	15.892	C
C - B1438 East	476	119	1306	643	0.739	472	436	1.6	2.6	20.465	C

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	234	2337	0.514	1221	1327	5.9	1.1	3.282	A
B - A12 West	1358	340	179	2403	0.565	1382	1308	7.2	1.3	3.607	A
C - B1438 East	388	97	1090	1000	0.388	396	365	2.6	0.6	6.044	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1007	252	193	2362	0.426	1008	1093	1.1	0.7	2.661	A
B - A12 West	1138	284	147	2422	0.470	1139	1079	1.3	0.9	2.809	A
C - B1438 East	325	81	900	1094	0.297	326	301	0.6	0.4	4.694	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.74	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.88	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.42	0.00	0.00	0.42	0.42			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.05	0.04	0.39	2.64	4.56			N/A	N/A
B - A12 West	1.29	0.04	0.37	3.30	6.06			N/A	N/A
C - B1438 East	0.62	0.06	0.62	1.36	1.45			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.40	0.03	0.29	3.40	11.64			N/A	N/A
B - A12 West	4.22	0.03	0.30	4.22	18.24			N/A	N/A
C - B1438 East	1.65	0.03	0.28	1.65	3.73			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.86	0.03	0.32	8.44	29.26			N/A	N/A
B - A12 West	7.17	0.03	0.33	11.24	36.74			N/A	N/A
C - B1438 East	2.63	0.03	0.34	5.60	14.04			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.06	0.78	2.06	2.90			N/A	N/A
B - A12 West	1.31	0.06	0.69	2.99	4.47			N/A	N/A
C - B1438 East	0.64	0.06	0.62	1.39	1.48			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.75	0.04	0.42	1.62	2.45			N/A	N/A
B - A12 West	0.89	0.04	0.39	2.11	3.58			N/A	N/A
C - B1438 East	0.43	0.04	0.37	1.23	1.40			N/A	N/A

## 2019 Base Year, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	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)	Run automatically
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1252	100.000
B - A12 West		ONE HOUR	✓	1487	100.000
C - B1438 East		ONE HOUR	✓	479	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1102	143
	B - A12 West	1260	2	225
	C - B1438 East	191	288	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	2	3
	B - A12 West	3	0	0
	C - B1438 East	2	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.57	3.49	1.3	1.9	A	1149	1723
B - A12 West	0.67	4.41	2.0	4.0	A	1364	2047
C - B1438 East	0.54	8.17	1.2	2.8	A	440	659

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	943	236	170	2460	0.383	940	1094	0.0	0.6	2.363	A
B - A12 West	1119	280	148	2495	0.449	1116	1045	0.0	0.8	2.605	A
C - B1438 East	361	90	834	1156	0.312	359	276	0.0	0.4	4.504	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1126	281	204	2439	0.461	1125	1309	0.6	0.9	2.737	A
B - A12 West	1337	334	178	2477	0.540	1335	1250	0.8	1.2	3.148	A
C - B1438 East	431	108	998	1077	0.400	430	331	0.4	0.7	5.555	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1378	345	249	2411	0.572	1377	1602	0.9	1.3	3.475	A
B - A12 West	1637	409	217	2453	0.667	1634	1530	1.2	2.0	4.376	A
C - B1438 East	527	132	1222	969	0.544	525	404	0.7	1.2	8.081	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1378	345	250	2410	0.572	1378	1605	1.3	1.3	3.487	A
B - A12 West	1637	409	218	2453	0.668	1637	1533	2.0	2.0	4.414	A
C - B1438 East	527	132	1223	968	0.545	527	405	1.2	1.2	8.168	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1126	281	205	2439	0.461	1127	1314	1.3	0.9	2.748	A
B - A12 West	1337	334	179	2477	0.540	1340	1254	2.0	1.2	3.175	A
C - B1438 East	431	108	1000	1076	0.400	433	332	1.2	0.7	5.616	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	943	236	171	2460	0.383	944	1099	0.9	0.6	2.376	A
B - A12 West	1119	280	149	2495	0.449	1121	1049	1.2	0.8	2.622	A
C - B1438 East	361	90	837	1155	0.312	361	277	0.7	0.5	4.544	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.62	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.81	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.45	0.00	0.00	0.45	0.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.07	0.76	1.44	1.86			N/A	N/A
B - A12 West	1.16	0.05	0.51	2.72	4.00			N/A	N/A
C - B1438 East	0.66	0.09	0.81	1.37	1.44			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.32	0.03	0.26	1.32	1.32			N/A	N/A
B - A12 West	1.98	0.03	0.26	1.98	1.98			N/A	N/A
C - B1438 East	1.17	0.03	0.26	1.17	1.17			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.33	0.03	0.26	1.33	1.33			N/A	N/A
B - A12 West	1.99	0.03	0.26	1.99	1.99			N/A	N/A
C - B1438 East	1.18	0.03	0.27	1.18	2.78			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.86	0.54	1.00	1.40	1.45			N/A	N/A
B - A12 West	1.18	0.24	1.12	1.72	1.94			N/A	N/A
C - B1438 East	0.67	0.10	0.84	1.37	1.44			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.62	0.10	0.84	1.37	1.43			N/A	N/A
B - A12 West	0.82	0.07	0.79	1.17	1.66			N/A	N/A
C - B1438 East	0.46	0.04	0.39	1.23	1.36			N/A	N/A

## 2023 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.37	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)	Run automatically
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	797	100.000
B - A12 West		ONE HOUR	✓	649	100.000
C - B1438 East		ONE HOUR	✓	117	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	2	768	27
	B - A12 West	575	0	74
	C - B1438 East	30	88	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	8	0
	B - A12 West	9	0	7
	C - B1438 East	3	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.37	2.40	0.6	2.7	A	731	1097
B - A12 West	0.30	2.11	0.4	1.5	A	595	893
C - B1438 East	0.12	3.74	0.1	0.5	A	108	161

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	600	150	55	2395	0.250	599	456	0.0	0.3	2.003	A
B - A12 West	488	122	24	2428	0.201	487	642	0.0	0.3	1.855	A
C - B1438 East	88	22	578	1225	0.072	88	76	0.0	0.1	3.166	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	716	179	66	2389	0.300	716	545	0.3	0.4	2.152	A
B - A12 West	583	146	28	2425	0.241	583	768	0.3	0.3	1.954	A
C - B1438 East	105	26	691	1168	0.090	105	91	0.1	0.1	3.385	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	877	219	81	2379	0.369	877	668	0.4	0.6	2.394	A
B - A12 West	714	179	35	2421	0.295	714	941	0.3	0.4	2.108	A
C - B1438 East	129	32	847	1091	0.118	129	111	0.1	0.1	3.740	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	877	219	81	2379	0.369	877	668	0.6	0.6	2.396	A
B - A12 West	714	179	35	2421	0.295	714	942	0.4	0.4	2.108	A
C - B1438 East	129	32	847	1091	0.118	129	111	0.1	0.1	3.742	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	716	179	66	2389	0.300	717	546	0.6	0.4	2.155	A
B - A12 West	583	146	28	2425	0.241	584	770	0.4	0.3	1.955	A
C - B1438 East	105	26	692	1168	0.090	106	91	0.1	0.1	3.390	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	600	150	56	2395	0.250	600	457	0.4	0.3	2.007	A
B - A12 West	488	122	24	2427	0.201	489	644	0.3	0.3	1.856	A
C - B1438 East	88	22	580	1224	0.072	88	76	0.1	0.1	3.172	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.33	0.00	0.00	0.33	0.33			N/A	N/A
B - A12 West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.43	0.00	0.00	0.43	0.43			N/A	N/A
B - A12 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1438 East	0.10	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.58	0.03	0.25	0.58	0.58			N/A	N/A
B - A12 West	0.42	0.03	0.25	0.45	0.48			N/A	N/A
C - B1438 East	0.13	0.03	0.26	0.46	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.58	0.03	0.29	1.29	2.71			N/A	N/A
B - A12 West	0.42	0.03	0.33	1.33	1.46			N/A	N/A
C - B1438 East	0.13	0.00	0.00	0.13	0.13			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.43	0.00	0.00	0.43	0.43			N/A	N/A
B - A12 West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - B1438 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - A12 West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 2023 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	27.81	D

#### 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)	Run automatically
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1323	100.000
B - A12 West		ONE HOUR	✓	1514	100.000
C - B1438 East		ONE HOUR	✓	270	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	11	1211	101
	B - A12 West	1305	1	207
	C - B1438 East	117	152	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	5	4
	B - A12 West	9	0	6
	C - B1438 East	2	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.93	26.08	10.4	55.9	D	1214	1821
B - A12 West	0.95	28.87	13.3	69.6	D	1389	2084
C - B1438 East	0.73	30.23	2.4	10.9	D	248	372

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	996	249	157	2398	0.415	993	1076	0.0	0.7	2.556	A
B - A12 West	1140	285	97	2390	0.477	1136	1024	0.0	0.9	2.862	A
C - B1438 East	204	51	918	1083	0.188	203	232	0.0	0.2	4.084	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	188	2378	0.500	1188	1287	0.7	1.0	3.021	A
B - A12 West	1361	340	116	2379	0.572	1359	1225	0.9	1.3	3.524	A
C - B1438 East	243	61	1099	995	0.244	243	278	0.2	0.3	4.783	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1457	364	227	1685	0.865	1438	1556	1.0	5.7	13.674	B
B - A12 West	1667	417	140	1863	0.895	1643	1483	1.3	7.3	15.016	C
C - B1438 East	298	74	1329	500	0.595	293	336	0.3	1.4	17.044	C

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1457	364	227	1558	0.935	1438	1556	5.7	10.4	26.081	D
B - A12 West	1667	417	140	1746	0.955	1643	1483	7.3	13.3	28.873	D
C - B1438 East	298	74	1329	409	0.729	294	336	1.4	2.4	30.226	D

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	195	2374	0.501	1227	1334	10.4	1.0	3.240	A
B - A12 West	1361	340	120	2377	0.573	1409	1266	13.3	1.4	3.903	A
C - B1438 East	243	61	1134	978	0.249	251	287	2.4	0.3	5.014	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	996	249	158	2398	0.415	997	1081	1.0	0.7	2.573	A
B - A12 West	1140	285	97	2390	0.477	1142	1029	1.4	0.9	2.887	A
C - B1438 East	204	51	922	1081	0.188	204	233	0.3	0.2	4.105	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.91	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.23	0.00	0.00	0.23	0.23			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.03	0.34	2.32	4.85			N/A	N/A
B - A12 West	1.32	0.03	0.34	3.10	6.74			N/A	N/A
C - B1438 East	0.32	0.03	0.26	0.47	0.50			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.72	0.04	0.35	12.48	31.24			N/A	N/A
B - A12 West	7.28	0.04	0.40	18.86	39.70			N/A	N/A
C - B1438 East	1.40	0.03	0.27	1.40	2.43			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	10.39	0.05	0.46	28.93	55.86			N/A	N/A
B - A12 West	13.27	0.05	0.71	38.18	69.60			N/A	N/A
C - B1438 East	2.41	0.05	0.47	6.63	10.92			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.01	0.04	0.43	2.44	3.82			N/A	N/A
B - A12 West	1.35	0.04	0.41	3.53	5.95			N/A	N/A
C - B1438 East	0.33	0.03	0.29	0.73	1.12			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.03	0.35	1.67	3.00			N/A	N/A
B - A12 West	0.92	0.03	0.33	2.05	4.48			N/A	N/A
C - B1438 East	0.23	0.03	0.26	0.47	0.50			N/A	N/A

## 2023 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	7.41	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)	Run automatically
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1597	100.000
B - A12 West		ONE HOUR	✓	1579	100.000
C - B1438 East		ONE HOUR	✓	357	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	13	1396	188
	B - A12 West	1238	2	339
	C - B1438 East	162	195	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	8	7	5
	B - A12 West	9	0	6
	C - B1438 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.79	7.75	3.7	11.6	A	1465	2197
B - A12 West	0.76	6.40	3.0	6.3	A	1449	2173
C - B1438 East	0.53	10.47	1.1	4.3	B	327	491

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	256	2298	0.523	1198	1060	0.0	1.1	3.256	A
B - A12 West	1189	297	131	2375	0.501	1185	1194	0.0	1.0	3.015	A
C - B1438 East	269	67	1058	991	0.271	267	395	0.0	0.4	4.965	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1435	359	306	2266	0.633	1433	1269	1.1	1.7	4.307	A
B - A12 West	1419	355	157	2359	0.602	1417	1429	1.0	1.5	3.813	A
C - B1438 East	321	80	1266	889	0.361	320	473	0.4	0.6	6.321	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1758	439	374	2223	0.791	1750	1551	1.7	3.6	7.495	A
B - A12 West	1738	435	192	2339	0.743	1733	1745	1.5	2.8	5.891	A
C - B1438 East	393	98	1547	751	0.523	391	578	0.6	1.1	9.930	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1758	439	375	2221	0.791	1757	1555	3.6	3.7	7.750	A
B - A12 West	1738	435	193	2299	0.756	1738	1753	2.8	3.0	6.396	A
C - B1438 East	393	98	1553	736	0.534	393	580	1.1	1.1	10.472	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1435	359	308	2265	0.634	1443	1276	3.7	1.8	4.422	A
B - A12 West	1419	355	159	2359	0.602	1425	1440	3.0	1.5	3.883	A
C - B1438 East	321	80	1275	884	0.363	323	476	1.1	0.6	6.439	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	257	2297	0.523	1205	1066	1.8	1.1	3.304	A
B - A12 West	1189	297	132	2374	0.501	1191	1202	1.5	1.0	3.046	A
C - B1438 East	269	67	1064	988	0.272	269	397	0.6	0.4	5.018	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	1.00	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.37	0.00	0.00	0.37	0.37			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.04	0.43	4.57	7.69			N/A	N/A
B - A12 West	1.49	0.04	0.45	3.88	6.29			N/A	N/A
C - B1438 East	0.56	0.07	0.71	1.34	1.42			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.64	0.03	0.29	3.64	11.57			N/A	N/A
B - A12 West	2.82	0.03	0.27	2.82	3.97			N/A	N/A
C - B1438 East	1.07	0.03	0.26	1.07	1.07			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.72	0.03	0.27	3.72	3.72			N/A	N/A
B - A12 West	3.03	0.03	0.27	3.03	3.03			N/A	N/A
C - B1438 East	1.12	0.03	0.28	1.12	4.30			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.75	0.07	1.00	4.09	5.87			N/A	N/A
B - A12 West	1.53	0.09	1.16	2.98	3.99			N/A	N/A
C - B1438 East	0.58	0.07	0.69	1.34	1.42			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.04	0.41	2.77	4.55			N/A	N/A
B - A12 West	1.01	0.05	0.52	2.20	3.24			N/A	N/A
C - B1438 East	0.38	0.03	0.32	1.04	1.27			N/A	N/A

## 2023 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	53.03	F

#### 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)	Run automatically
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1364	100.000
B - A12 West		ONE HOUR	✓	1529	100.000
C - B1438 East		ONE HOUR	✓	458	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	6	1202	156
B - A12 West	1267	1	261
C - B1438 East	202	255	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	7	4
B - A12 West	7	0	2
C - B1438 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.00	49.71	21.8	85.9	E	1252	1878
B - A12 West	1.01	53.05	26.6	97.7	F	1403	2104
C - B1438 East	0.95	63.23	8.6	37.7	F	420	630

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1027	257	196	2343	0.438	1024	1107	0.0	0.8	2.723	A
B - A12 West	1151	288	156	2399	0.480	1147	1094	0.0	0.9	2.869	A
C - B1438 East	345	86	907	1082	0.318	343	313	0.0	0.5	4.855	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1226	307	235	2320	0.529	1225	1325	0.8	1.1	3.284	A
B - A12 West	1375	344	187	2380	0.577	1373	1309	0.9	1.4	3.567	A
C - B1438 East	411	103	1085	994	0.414	410	375	0.5	0.7	6.161	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1502	376	280	1581	0.950	1460	1576	1.1	11.6	24.333	C
B - A12 West	1683	421	222	1746	0.964	1633	1559	1.4	13.9	25.357	D
C - B1438 East	504	126	1294	583	0.864	487	446	0.7	4.9	33.089	D

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1502	376	279	1506	0.997	1461	1576	11.6	21.8	49.707	E
B - A12 West	1683	421	223	1670	1.008	1632	1561	13.9	26.6	53.050	F
C - B1438 East	504	126	1295	533	0.945	489	446	4.9	8.6	63.228	F

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1226	307	253	2309	0.531	1309	1424	21.8	1.1	3.913	A
B - A12 West	1375	344	201	2371	0.580	1475	1401	26.6	1.4	4.501	A
C - B1438 East	411	103	1160	957	0.430	443	402	8.6	0.8	7.438	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1027	257	197	2343	0.438	1028	1113	1.1	0.8	2.741	A
B - A12 West	1151	288	157	2398	0.480	1153	1100	1.4	0.9	2.895	A
C - B1438 East	345	86	911	1080	0.319	346	315	0.8	0.5	4.908	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.41	0.97	1.39	1.45			N/A	N/A
B - A12 West	0.92	0.35	0.99	1.44	1.50			N/A	N/A
C - B1438 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.03	0.32	2.14	5.67			N/A	N/A
B - A12 West	1.35	0.03	0.32	2.69	6.98			N/A	N/A
C - B1438 East	0.70	0.04	0.38	1.58	2.55			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	11.61	0.08	2.34	33.41	51.86			N/A	N/A
B - A12 West	13.87	0.11	4.13	39.00	58.23			N/A	N/A
C - B1438 East	4.90	0.05	0.48	13.98	24.48			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	21.80	0.18	8.59	59.52	85.89			N/A	N/A
B - A12 West	26.62	0.29	12.83	69.79	97.67			N/A	N/A
C - B1438 East	8.63	0.08	1.86	24.56	37.71			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.14	0.04	0.35	2.80	5.51			N/A	N/A
B - A12 West	1.39	0.04	0.35	3.42	7.01			N/A	N/A
C - B1438 East	0.76	0.04	0.36	1.81	3.21			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.03	0.30	1.34	3.84			N/A	N/A
B - A12 West	0.93	0.03	0.30	1.40	4.55			N/A	N/A
C - B1438 East	0.47	0.03	0.30	1.30	2.09			N/A	N/A

## 2023 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	5.08	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)	Run automatically
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1339	100.000
B - A12 West		ONE HOUR	✓	1477	100.000
C - B1438 East		ONE HOUR	✓	503	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1177	155
	B - A12 West	1253	2	222
	C - B1438 East	203	301	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	3	2
	B - A12 West	4	0	2
	C - B1438 East	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.62	3.92	1.6	2.7	A	1229	1843
B - A12 West	0.67	4.53	2.0	4.1	A	1355	2033
C - B1438 East	0.60	9.84	1.5	3.2	A	462	692

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1008	252	168	2443	0.413	1005	1097	0.0	0.7	2.501	A
B - A12 West	1112	278	157	2465	0.451	1108	1110	0.0	0.8	2.647	A
C - B1438 East	379	95	890	1122	0.338	377	283	0.0	0.5	4.820	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1204	301	201	2422	0.497	1203	1313	0.7	1.0	2.950	A
B - A12 West	1328	332	188	2446	0.543	1326	1328	0.8	1.2	3.210	A
C - B1438 East	452	113	1065	1037	0.436	451	339	0.5	0.8	6.137	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1474	369	246	2393	0.616	1472	1606	1.0	1.6	3.897	A
B - A12 West	1626	406	230	2421	0.672	1623	1625	1.2	2.0	4.490	A
C - B1438 East	554	138	1304	921	0.602	551	415	0.8	1.5	9.670	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1474	369	247	2393	0.616	1474	1610	1.6	1.6	3.919	A
B - A12 West	1626	406	231	2420	0.672	1626	1629	2.0	2.0	4.531	A
C - B1438 East	554	138	1306	920	0.602	554	416	1.5	1.5	9.837	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1204	301	202	2421	0.497	1206	1318	1.6	1.0	2.970	A
B - A12 West	1328	332	190	2445	0.543	1331	1334	2.0	1.2	3.242	A
C - B1438 East	452	113	1068	1035	0.437	455	340	1.5	0.8	6.235	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1008	252	169	2442	0.413	1009	1102	1.0	0.7	2.514	A
B - A12 West	1112	278	158	2464	0.451	1113	1115	1.2	0.8	2.667	A
C - B1438 East	379	95	894	1120	0.338	380	285	0.8	0.5	4.871	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.82	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.51	0.51	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.98	0.06	0.70	1.91	2.73			N/A	N/A
B - A12 West	1.18	0.05	0.51	2.77	4.11			N/A	N/A
C - B1438 East	0.76	0.08	0.81	1.23	1.23			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.59	0.03	0.26	1.59	1.59			N/A	N/A
B - A12 West	2.02	0.03	0.26	2.02	2.02			N/A	N/A
C - B1438 East	1.47	0.03	0.27	1.47	1.51			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.60	0.03	0.26	1.60	1.60			N/A	N/A
B - A12 West	2.03	0.03	0.26	2.03	2.03			N/A	N/A
C - B1438 East	1.49	0.03	0.27	1.49	1.51			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.00	0.51	1.02	1.36	1.36			N/A	N/A
B - A12 West	1.20	0.21	1.13	1.76	1.98			N/A	N/A
C - B1438 East	0.79	0.08	0.82	1.34	1.34			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.09	0.82	1.38	1.45			N/A	N/A
B - A12 West	0.83	0.07	0.78	1.26	1.72			N/A	N/A
C - B1438 East	0.52	0.04	0.42	1.32	1.45			N/A	N/A

## 2023 Early Years, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.47	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)	Run automatically
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	811	100.000
B - A12 West		ONE HOUR	✓	749	100.000
C - B1438 East		ONE HOUR	✓	121	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	2	781	27
	B - A12 West	675	0	74
	C - B1438 East	34	88	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	8	0
	B - A12 West	11	0	7
	C - B1438 East	2	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.37	2.42	0.6	2.7	A	744	1116
B - A12 West	0.35	2.32	0.5	2.4	A	687	1031
C - B1438 East	0.12	3.78	0.1	0.5	A	111	167

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	611	153	56	2398	0.255	609	534	0.0	0.3	2.011	A
B - A12 West	564	141	27	2383	0.237	562	653	0.0	0.3	1.976	A
C - B1438 East	91	23	589	1222	0.075	91	76	0.0	0.1	3.183	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	729	182	66	2391	0.305	729	638	0.3	0.4	2.165	A
B - A12 West	673	168	32	2380	0.283	673	781	0.3	0.4	2.108	A
C - B1438 East	109	27	704	1165	0.094	109	91	0.1	0.1	3.409	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	893	223	81	2382	0.375	892	782	0.4	0.6	2.415	A
B - A12 West	824	206	39	2376	0.347	824	956	0.4	0.5	2.319	A
C - B1438 East	134	33	862	1086	0.123	133	112	0.1	0.1	3.779	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	893	223	81	2382	0.375	893	782	0.6	0.6	2.417	A
B - A12 West	824	206	39	2376	0.347	824	957	0.5	0.5	2.319	A
C - B1438 East	134	33	863	1086	0.123	134	112	0.1	0.1	3.780	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	729	182	67	2391	0.305	730	639	0.6	0.4	2.166	A
B - A12 West	673	168	32	2380	0.283	674	782	0.5	0.4	2.110	A
C - B1438 East	109	27	705	1164	0.094	109	91	0.1	0.1	3.415	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	611	153	56	2398	0.255	611	535	0.4	0.3	2.014	A
B - A12 West	564	141	27	2383	0.237	564	655	0.4	0.3	1.979	A
C - B1438 East	91	23	590	1221	0.075	91	76	0.1	0.1	3.188	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - A12 West	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - A12 West	0.39	0.00	0.00	0.39	0.39			N/A	N/A
C - B1438 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.25	0.60	0.60			N/A	N/A
B - A12 West	0.53	0.03	0.25	0.53	0.53			N/A	N/A
C - B1438 East	0.14	0.03	0.26	0.46	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.29	1.23	2.73			N/A	N/A
B - A12 West	0.53	0.03	0.30	1.40	2.44			N/A	N/A
C - B1438 East	0.14	0.00	0.00	0.14	0.14			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - A12 West	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - B1438 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - A12 West	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 2023 Early Years, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	261.61	F

#### 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)	Run automatically
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1319	100.000
B - A12 West		ONE HOUR	✓	1694	100.000
C - B1438 East		ONE HOUR	✓	288	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	11	1216	91
B - A12 West	1485	1	208
C - B1438 East	133	155	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	5	4
B - A12 West	12	0	6
C - B1438 East	1	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.11	194.78	78.2	147.8	F	1210	1815
B - A12 West	1.19	330.14	151.2	200.0	F	1554	2332
C - B1438 East	1.00	140.55	12.0	46.6	F	265	397

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	993	248	158	2394	0.415	990	1221	0.0	0.7	2.558	A
B - A12 West	1275	319	109	2327	0.548	1270	1030	0.0	1.2	3.392	A
C - B1438 East	217	54	922	1082	0.201	216	226	0.0	0.2	4.151	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1186	296	189	2374	0.499	1185	1461	0.7	1.0	3.023	A
B - A12 West	1523	381	130	2315	0.658	1520	1232	1.2	1.9	4.513	A
C - B1438 East	259	65	1103	994	0.261	259	270	0.2	0.4	4.897	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1452	363	195	1305	1.113	1279	1519	1.0	44.2	73.102	F
B - A12 West	1865	466	144	1586	1.176	1570	1335	1.9	75.7	96.612	F
C - B1438 East	317	79	1191	322	0.987	287	283	0.4	8.0	75.698	F

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1452	363	194	1319	1.101	1316	1519	44.2	78.2	176.402	F
B - A12 West	1865	466	151	1564	1.193	1563	1376	75.7	151.2	266.379	F
C - B1438 East	317	79	1226	316	1.004	301	285	8.0	12.0	140.553	F

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1186	296	196	1286	0.922	1270	1518	78.2	57.1	194.777	F
B - A12 West	1523	381	139	1585	0.961	1575	1321	151.2	138.2	330.140	F
C - B1438 East	259	65	1183	305	0.851	277	283	12.0	7.6	128.289	F

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	993	248	198	1155	0.859	1136	1516	57.1	21.5	128.670	F
B - A12 West	1275	319	116	1610	0.792	1599	1171	138.2	57.3	222.070	F
C - B1438 East	217	54	1058	275	0.788	229	276	7.6	4.5	85.487	F

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.04	0.39	1.60	2.55			N/A	N/A
B - A12 West	1.20	0.04	0.38	3.03	5.52			N/A	N/A
C - B1438 East	0.25	0.03	0.25	0.45	0.48			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.03	0.27	0.99	1.91			N/A	N/A
B - A12 West	1.90	0.03	0.29	1.90	6.84			N/A	N/A
C - B1438 East	0.35	0.03	0.29	0.87	1.49			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	44.21	15.01	40.23	72.81	84.41			N/A	N/A
B - A12 West	75.67	37.32	72.09	110.72	123.72			N/A	N/A
C - B1438 East	7.95	0.28	4.61	18.65	24.92			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	78.22	27.77	71.82	127.98	147.84			N/A	N/A
B - A12 West	151.24	>199	>199	>199	>199			N/A	N/A
C - B1438 East	11.96	0.14	4.57	32.32	46.63			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	57.11	15.88	50.77	99.63	117.54			N/A	N/A
B - A12 West	138.20	>199	>199	>199	>199			N/A	N/A
C - B1438 East	7.56	0.08	1.59	21.46	32.98			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	21.46	8.51	19.71	33.07	37.70			N/A	N/A
B - A12 West	57.32	36.99	55.81	74.25	80.11			N/A	N/A
C - B1438 East	4.53	0.16	2.32	10.62	14.39			N/A	N/A

## 2023 Early Years, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	93.12	F

#### 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)	Run automatically
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1580	100.000
B - A12 West		ONE HOUR	✓	1619	100.000
C - B1438 East		ONE HOUR	✓	344	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	13	1386	180
B - A12 West	1282	2	335
C - B1438 East	149	195	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	8	8	5
B - A12 West	13	0	6
C - B1438 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.06	93.47	52.1	124.9	F	1449	2174
B - A12 West	1.06	94.07	53.9	127.6	F	1486	2228
C - B1438 East	0.96	86.70	9.1	34.9	F	316	473

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	253	2280	0.522	1185	1083	0.0	1.1	3.276	A
B - A12 West	1219	305	121	2305	0.529	1214	1187	0.0	1.1	3.289	A
C - B1438 East	259	65	1051	988	0.262	257	386	0.0	0.4	4.921	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1420	355	302	2249	0.631	1418	1296	1.1	1.7	4.316	A
B - A12 West	1455	364	145	2291	0.635	1453	1421	1.1	1.7	4.285	A
C - B1438 East	309	77	1257	886	0.349	308	462	0.4	0.5	6.228	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1739	435	349	1695	1.026	1639	1499	1.7	26.7	40.918	E
B - A12 West	1782	446	169	1735	1.028	1679	1644	1.7	27.5	40.950	E
C - B1438 East	379	95	1454	421	0.899	359	534	0.5	5.5	47.815	E

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1739	435	349	1648	1.055	1637	1499	26.7	52.1	93.473	F
B - A12 West	1782	446	171	1687	1.057	1677	1646	27.5	53.9	94.066	F
C - B1438 East	379	95	1452	393	0.963	364	534	5.5	9.1	86.705	F

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1420	355	346	2221	0.639	1621	1479	52.1	1.8	8.591	A
B - A12 West	1455	364	162	2281	0.638	1664	1619	53.9	1.8	8.392	A
C - B1438 East	309	77	1438	796	0.388	343	529	9.1	0.6	8.536	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	254	2279	0.522	1192	1090	1.8	1.1	3.318	A
B - A12 West	1219	305	122	2304	0.529	1221	1195	1.8	1.1	3.333	A
C - B1438 East	259	65	1057	985	0.263	260	389	0.6	0.4	4.975	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.08	0.15	1.04	1.64	1.91			N/A	N/A
B - A12 West	1.11	0.15	1.06	1.69	1.95			N/A	N/A
C - B1438 East	0.35	0.00	0.00	0.35	0.35			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.69	0.03	0.32	3.28	8.83			N/A	N/A
B - A12 West	1.72	0.03	0.32	3.31	8.98			N/A	N/A
C - B1438 East	0.53	0.04	0.35	1.03	1.88			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	26.66	1.78	19.55	57.51	73.25			N/A	N/A
B - A12 West	27.47	2.00	20.34	58.78	74.60			N/A	N/A
C - B1438 East	5.52	0.07	1.37	15.60	24.36			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	52.10	8.26	42.88	101.91	124.89			N/A	N/A
B - A12 West	53.93	9.05	44.74	104.48	127.58			N/A	N/A
C - B1438 East	9.08	0.13	3.48	24.26	34.88			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.80	0.03	0.33	3.74	9.49			N/A	N/A
B - A12 West	1.79	0.03	0.32	3.59	9.42			N/A	N/A
C - B1438 East	0.64	0.03	0.34	1.47	2.76			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.10	0.03	0.28	1.10	4.26			N/A	N/A
B - A12 West	1.13	0.03	0.29	1.16	4.48			N/A	N/A
C - B1438 East	0.36	0.03	0.28	0.84	1.52			N/A	N/A

## 2023 Early Years, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	51.36	F

#### 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)	Run automatically
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1344	100.000
B - A12 West		ONE HOUR	✓	1488	100.000
C - B1438 East		ONE HOUR	✓	458	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	6	1191	148
B - A12 West	1234	1	253
C - B1438 East	202	255	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	10	5
B - A12 West	10	0	2
C - B1438 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.99	48.33	20.8	84.1	E	1233	1850
B - A12 West	1.00	51.11	24.8	94.2	F	1365	2048
C - B1438 East	0.94	61.58	8.4	37.1	F	420	630

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1012	253	191	2297	0.441	1009	1082	0.0	0.8	2.788	A
B - A12 West	1120	280	156	2349	0.477	1117	1085	0.0	0.9	2.913	A
C - B1438 East	345	86	899	1076	0.320	343	301	0.0	0.5	4.898	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1208	302	228	2274	0.531	1207	1295	0.8	1.1	3.368	A
B - A12 West	1338	334	187	2331	0.574	1336	1299	0.9	1.3	3.611	A
C - B1438 East	411	103	1075	986	0.417	410	360	0.5	0.7	6.245	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1480	370	272	1566	0.945	1440	1542	1.1	11.1	23.756	C
B - A12 West	1638	410	222	1710	0.958	1592	1549	1.3	12.9	24.627	C
C - B1438 East	504	126	1283	587	0.859	488	429	0.7	4.8	32.304	D

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1480	370	272	1488	0.994	1441	1542	11.1	20.8	48.331	E
B - A12 West	1638	410	223	1632	1.004	1591	1550	12.9	24.8	51.110	F
C - B1438 East	504	126	1284	535	0.941	489	429	4.8	8.4	61.577	F

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1208	302	245	2265	0.534	1287	1388	20.8	1.2	3.992	A
B - A12 West	1338	334	201	2323	0.576	1431	1387	24.8	1.4	4.489	A
C - B1438 East	411	103	1147	950	0.433	442	385	8.4	0.8	7.515	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1012	253	192	2296	0.441	1013	1088	1.2	0.8	2.808	A
B - A12 West	1120	280	157	2348	0.477	1122	1091	1.4	0.9	2.941	A
C - B1438 East	345	86	903	1074	0.321	346	302	0.8	0.5	4.953	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.50	0.97	1.40	1.45			N/A	N/A
B - A12 West	0.91	0.42	0.99	1.43	1.48			N/A	N/A
C - B1438 East	0.47	0.00	0.00	0.47	0.47			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.32	2.25	5.72			N/A	N/A
B - A12 West	1.33	0.03	0.32	2.72	6.88			N/A	N/A
C - B1438 East	0.71	0.04	0.39	1.60	2.56			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	11.06	0.08	1.88	32.11	50.69			N/A	N/A
B - A12 West	12.94	0.10	3.27	36.89	56.07			N/A	N/A
C - B1438 East	4.76	0.05	0.47	13.54	24.06			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	20.79	0.15	7.52	57.56	84.08			N/A	N/A
B - A12 West	24.76	0.23	10.87	66.29	94.15			N/A	N/A
C - B1438 East	8.39	0.08	1.66	23.97	37.13			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.04	0.35	2.84	5.56			N/A	N/A
B - A12 West	1.37	0.04	0.35	3.39	6.86			N/A	N/A
C - B1438 East	0.77	0.04	0.36	1.83	3.23			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.03	0.31	1.40	3.88			N/A	N/A
B - A12 West	0.92	0.03	0.30	1.46	4.53			N/A	N/A
C - B1438 East	0.48	0.03	0.30	1.32	2.11			N/A	N/A

## 2023 Early Years, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	5,26	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)	Run automatically
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1342	100.000
B - A12 West		ONE HOUR	✓	1458	100.000
C - B1438 East		ONE HOUR	✓	504	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1186	150
	B - A12 West	1238	2	218
	C - B1438 East	203	301	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	2
	B - A12 West	4	0	2
	C - B1438 East	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.63	4.18	1.7	3.0	A	1232	1847
B - A12 West	0.67	4.49	2.0	3.9	A	1338	2006
C - B1438 East	0.62	10.51	1.6	3.6	B	463	694

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1010	253	165	2386	0.424	1008	1087	0.0	0.7	2.607	A
B - A12 West	1097	274	158	2452	0.448	1094	1117	0.0	0.8	2.645	A
C - B1438 East	380	95	897	1107	0.343	377	276	0.0	0.5	4.923	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1207	302	198	2366	0.510	1205	1300	0.7	1.0	3.100	A
B - A12 West	1310	328	189	2433	0.539	1309	1336	0.8	1.2	3.199	A
C - B1438 East	453	113	1073	1018	0.445	452	330	0.5	0.8	6.346	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1478	369	242	2338	0.632	1475	1590	1.0	1.7	4.158	A
B - A12 West	1605	401	230	2408	0.667	1602	1634	1.2	2.0	4.449	A
C - B1438 East	555	139	1313	898	0.618	552	404	0.8	1.6	10.299	B

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1478	369	242	2338	0.632	1478	1594	1.7	1.7	4.184	A
B - A12 West	1605	401	232	2407	0.667	1605	1639	2.0	2.0	4.488	A
C - B1438 East	555	139	1315	897	0.619	555	405	1.6	1.6	10.510	B

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1207	302	198	2365	0.510	1209	1306	1.7	1.0	3.123	A
B - A12 West	1310	328	190	2432	0.539	1314	1342	2.0	1.2	3.228	A
C - B1438 East	453	113	1076	1017	0.446	456	331	1.6	0.8	6.460	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1010	253	166	2385	0.424	1012	1092	1.0	0.7	2.622	A
B - A12 West	1097	274	159	2451	0.448	1099	1122	1.2	0.8	2.667	A
C - B1438 East	380	95	900	1105	0.344	381	277	0.8	0.5	4.981	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.73	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.81	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.52	0.52	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.06	0.67	2.11	2.99			N/A	N/A
B - A12 West	1.16	0.05	0.53	2.69	3.95			N/A	N/A
C - B1438 East	0.79	0.08	0.81	1.47	1.47			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.70	0.03	0.26	1.70	1.70			N/A	N/A
B - A12 West	1.97	0.03	0.26	1.97	1.97			N/A	N/A
C - B1438 East	1.57	0.03	0.27	1.57	2.37			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.03	0.26	1.71	1.71			N/A	N/A
B - A12 West	1.99	0.03	0.26	1.99	1.99			N/A	N/A
C - B1438 East	1.60	0.03	0.28	1.60	3.62			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.05	0.38	1.05	1.29	1.66			N/A	N/A
B - A12 West	1.18	0.23	1.12	1.71	1.94			N/A	N/A
C - B1438 East	0.81	0.08	0.82	1.04	1.57			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.74	0.08	0.80	1.42	1.49			N/A	N/A
B - A12 West	0.82	0.07	0.79	1.17	1.66			N/A	N/A
C - B1438 East	0.53	0.04	0.42	1.35	1.49			N/A	N/A

## 2028 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.41	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)	Run automatically
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	816	100.000
B - A12 West		ONE HOUR	✓	679	100.000
C - B1438 East		ONE HOUR	✓	122	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	2	785	29
	B - A12 West	600	0	78
	C - B1438 East	32	91	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	8	0
	B - A12 West	9	0	7
	C - B1438 East	3	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.38	2.43	0.6	2.7	A	749	1123
B - A12 West	0.31	2.15	0.4	1.7	A	623	934
C - B1438 East	0.12	3.80	0.1	0.5	A	112	168

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	614	154	59	2395	0.257	613	476	0.0	0.3	2.020	A
B - A12 West	511	128	25	2431	0.210	510	658	0.0	0.3	1.873	A
C - B1438 East	92	23	591	1218	0.076	92	80	0.0	0.1	3.197	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	734	183	70	2387	0.307	733	570	0.3	0.4	2.176	A
B - A12 West	610	153	30	2428	0.251	610	787	0.3	0.3	1.979	A
C - B1438 East	110	27	707	1160	0.095	110	96	0.1	0.1	3.427	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	898	225	86	2377	0.378	898	698	0.4	0.6	2.431	A
B - A12 West	747	187	37	2424	0.308	747	964	0.3	0.4	2.146	A
C - B1438 East	135	34	866	1081	0.125	134	118	0.1	0.1	3.802	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	898	225	86	2377	0.378	898	698	0.6	0.6	2.433	A
B - A12 West	747	187	37	2424	0.308	747	965	0.4	0.4	2.146	A
C - B1438 East	135	34	867	1081	0.125	135	118	0.1	0.1	3.803	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	734	183	71	2387	0.307	734	570	0.6	0.4	2.179	A
B - A12 West	610	153	30	2428	0.251	611	788	0.4	0.3	1.982	A
C - B1438 East	110	27	708	1160	0.095	110	96	0.1	0.1	3.432	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	614	154	59	2395	0.257	615	478	0.4	0.3	2.024	A
B - A12 West	511	128	25	2431	0.210	511	660	0.3	0.3	1.877	A
C - B1438 East	92	23	593	1217	0.076	92	81	0.1	0.1	3.202	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - A12 West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - A12 West	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - B1438 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.25	0.60	0.60			N/A	N/A
B - A12 West	0.44	0.03	0.25	0.45	0.48			N/A	N/A
C - B1438 East	0.14	0.03	0.26	0.46	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.61	0.03	0.29	1.20	2.73			N/A	N/A
B - A12 West	0.44	0.03	0.32	1.39	1.73			N/A	N/A
C - B1438 East	0.14	0.03	0.25	0.45	0.48			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.45	0.00	0.00	0.45	0.45			N/A	N/A
B - A12 West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - B1438 East	0.11	0.00	0.00	0.11	0.11			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B - A12 West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - B1438 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 2028 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	94.55	F

#### 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)	Run automatically
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1337	100.000
B - A12 West		ONE HOUR	✓	1601	100.000
C - B1438 East		ONE HOUR	✓	280	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	11	1281	45
	B - A12 West	1378	1	222
	C - B1438 East	123	157	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	5	9
	B - A12 West	8	0	6
	C - B1438 East	2	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.04	85.72	38.8	104.1	F	1227	1840
B - A12 West	1.06	102.94	58.0	130.9	F	1469	2204
C - B1438 East	0.94	87.26	7.3	28.1	F	257	386

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1006	252	168	2391	0.421	1004	1134	0.0	0.7	2.589	A
B - A12 West	1205	301	101	2395	0.503	1201	1080	0.0	1.0	3.006	A
C - B1438 East	211	53	971	1058	0.200	210	201	0.0	0.2	4.244	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	201	2370	0.507	1201	1357	0.7	1.0	3.077	A
B - A12 West	1439	360	121	2384	0.604	1437	1292	1.0	1.5	3.796	A
C - B1438 East	252	63	1161	965	0.261	252	240	0.2	0.4	5.047	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1472	368	231	1454	1.012	1392	1560	1.0	21.1	39.100	E
B - A12 West	1763	441	140	1702	1.036	1651	1498	1.5	29.4	43.377	E
C - B1438 East	309	77	1346	354	0.871	292	277	0.4	4.6	48.977	E

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1472	368	231	1417	1.039	1401	1560	21.1	38.8	85.719	F
B - A12 West	1763	441	143	1657	1.064	1648	1510	29.4	58.0	102.942	F
C - B1438 East	309	77	1355	328	0.941	298	276	4.6	7.3	87.261	F

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1202	300	232	1725	0.697	1347	1560	38.8	2.4	13.955	B
B - A12 West	1439	360	134	1896	0.759	1658	1448	58.0	3.3	31.036	D
C - B1438 East	252	63	1304	633	0.398	279	276	7.3	0.7	10.919	B

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1006	252	170	2390	0.421	1013	1147	2.4	0.7	2.628	A
B - A12 West	1205	301	102	2394	0.503	1215	1091	3.3	1.0	3.074	A
C - B1438 East	211	53	980	1053	0.200	213	203	0.7	0.3	4.293	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.72	0.13	0.88	1.38	1.45			N/A	N/A
B - A12 West	1.01	0.13	0.99	1.50	1.82			N/A	N/A
C - B1438 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.03	0.30	1.34	4.88			N/A	N/A
B - A12 West	1.51	0.03	0.31	2.44	7.63			N/A	N/A
C - B1438 East	0.35	0.03	0.32	1.19	1.48			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	21.06	1.00	13.89	48.47	63.50			N/A	N/A
B - A12 West	29.40	2.98	22.73	60.72	76.01			N/A	N/A
C - B1438 East	4.55	0.05	0.64	13.01	21.82			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	38.78	3.31	29.27	82.39	104.12			N/A	N/A
B - A12 West	58.00	11.84	49.47	108.46	130.86			N/A	N/A
C - B1438 East	7.32	0.11	2.70	19.48	28.06			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.38	0.07	1.09	6.01	8.87			N/A	N/A
B - A12 West	3.35	0.06	1.07	9.13	14.03			N/A	N/A
C - B1438 East	0.67	0.04	0.43	1.35	1.94			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.73	0.03	0.29	1.14	3.11			N/A	N/A
B - A12 West	1.02	0.03	0.28	1.02	3.90			N/A	N/A
C - B1438 East	0.25	0.03	0.28	0.71	1.43			N/A	N/A

## 2028 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	118.92	F

#### 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)	Run automatically
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1611	100.000
B - A12 West		ONE HOUR	✓	1715	100.000
C - B1438 East		ONE HOUR	✓	371	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	13	1455	142
B - A12 West	1355	2	358
C - B1438 East	164	207	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	8	7	6
B - A12 West	8	0	6
C - B1438 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.08	119.36	67.2	139.9	F	1478	2217
B - A12 West	1.08	120.90	72.9	147.8	F	1574	2360
C - B1438 East	1.00	107.57	12.0	41.4	F	340	510

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1212	303	270	2290	0.530	1208	1148	0.0	1.1	3.315	A
B - A12 West	1291	323	132	2386	0.541	1286	1248	0.0	1.2	3.262	A
C - B1438 East	279	70	1103	970	0.288	278	376	0.0	0.4	5.186	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1448	362	323	2256	0.642	1445	1374	1.1	1.8	4.426	A
B - A12 West	1542	385	159	2370	0.650	1539	1493	1.2	1.8	4.318	A
C - B1438 East	333	83	1319	864	0.386	333	449	0.4	0.6	6.759	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1773	443	367	1686	1.052	1644	1563	1.8	34.2	48.977	E
B - A12 West	1888	472	182	1789	1.055	1748	1700	1.8	36.9	49.063	E
C - B1438 East	408	102	1500	432	0.946	382	510	0.6	7.3	56.128	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1773	443	367	1647	1.076	1641	1563	34.2	67.2	119.363	F
B - A12 West	1888	472	185	1750	1.079	1744	1702	36.9	72.9	120.899	F
C - B1438 East	408	102	1498	410	0.996	389	509	7.3	12.0	107.566	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1448	362	370	1671	0.866	1647	1562	67.2	17.5	96.489	F
B - A12 West	1542	385	173	1783	0.865	1759	1692	72.9	18.6	97.355	F
C - B1438 East	333	83	1503	417	0.800	362	513	12.0	4.9	74.406	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1212	303	266	2280	0.532	1278	1216	17.5	1.1	3.836	A
B - A12 West	1291	323	142	2380	0.542	1361	1322	18.6	1.2	3.783	A
C - B1438 East	279	70	1167	939	0.297	297	397	4.9	0.4	5.760	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.12	1.03	1.78	2.19			N/A	N/A
B - A12 West	1.17	0.11	1.06	1.88	2.47			N/A	N/A
C - B1438 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.77	0.03	0.32	3.25	9.19			N/A	N/A
B - A12 West	1.84	0.03	0.32	3.29	9.53			N/A	N/A
C - B1438 East	0.62	0.03	0.35	1.41	2.53			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	34.19	5.51	28.16	66.13	80.84			N/A	N/A
B - A12 West	36.85	6.60	30.81	70.10	85.19			N/A	N/A
C - B1438 East	7.28	0.12	2.74	19.31	27.73			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	67.23	18.21	59.62	118.32	139.94			N/A	N/A
B - A12 West	72.89	21.33	65.30	125.79	147.78			N/A	N/A
C - B1438 East	12.02	0.24	6.22	30.15	41.42			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	17.49	7.13	16.04	26.54	30.14			N/A	N/A
B - A12 West	18.65	7.81	17.18	28.09	31.83			N/A	N/A
C - B1438 East	4.88	1.39	4.09	7.20	8.28			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.03	0.28	1.15	3.84			N/A	N/A
B - A12 West	1.20	0.03	0.28	1.20	4.03			N/A	N/A
C - B1438 East	0.43	0.03	0.28	0.65	1.66			N/A	N/A

## 2028 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	65.84	F

#### 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)	Run automatically
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1391	100.000
B - A12 West		ONE HOUR	✓	1545	100.000
C - B1438 East		ONE HOUR	✓	474	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	6	1269	116
	B - A12 West	1281	1	263
	C - B1438 East	205	268	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	6	6
	B - A12 West	7	0	2
	C - B1438 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.02	61.79	28.6	95.6	F	1277	1915
B - A12 West	1.03	65.96	34.6	106.9	F	1418	2127
C - B1438 East	0.98	77.68	11.4	44.4	F	435	652

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1047	262	198	2347	0.446	1044	1120	0.0	0.8	2.756	A
B - A12 West	1163	291	158	2402	0.484	1159	1154	0.0	0.9	2.889	A
C - B1438 East	357	89	958	1059	0.337	355	284	0.0	0.5	5.093	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1251	313	237	2323	0.538	1249	1340	0.8	1.2	3.347	A
B - A12 West	1389	347	190	2383	0.583	1387	1381	0.9	1.4	3.608	A
C - B1438 East	426	106	1146	966	0.441	425	340	0.5	0.8	6.634	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1532	383	280	1569	0.976	1476	1579	1.2	15.1	29.339	D
B - A12 West	1701	425	223	1722	0.988	1635	1630	1.4	17.8	30.426	D
C - B1438 East	521	130	1354	573	0.911	499	401	0.8	6.5	40.617	E

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1532	383	279	1507	1.016	1478	1579	15.1	28.6	61.793	F
B - A12 West	1701	425	224	1658	1.026	1634	1634	17.8	34.6	65.961	F
C - B1438 East	521	130	1396	532	0.979	502	401	6.5	11.4	77.681	F

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1251	313	260	2309	0.542	1360	1470	28.6	1.2	4.266	A
B - A12 West	1389	347	209	2372	0.586	1522	1507	34.6	1.4	4.971	A
C - B1438 East	426	106	1248	916	0.465	468	372	11.4	0.9	8.811	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1047	262	199	2346	0.446	1049	1126	1.2	0.8	2.779	A
B - A12 West	1163	291	160	2401	0.484	1165	1161	1.4	0.9	2.918	A
C - B1438 East	357	89	962	1057	0.337	358	286	0.9	0.5	5.158	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.80	0.25	0.95	1.40	1.46			N/A	N/A
B - A12 West	0.93	0.23	0.98	1.41	1.41			N/A	N/A
C - B1438 East	0.50	0.50	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.16	0.03	0.31	2.03	5.87			N/A	N/A
B - A12 West	1.38	0.03	0.32	2.56	7.11			N/A	N/A
C - B1438 East	0.78	0.04	0.37	1.83	3.11			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	15.08	0.17	6.22	40.49	57.90			N/A	N/A
B - A12 West	17.80	0.26	8.85	45.81	63.59			N/A	N/A
C - B1438 East	6.46	0.07	1.16	18.33	28.43			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	28.57	0.58	16.51	70.65	95.58			N/A	N/A
B - A12 West	34.59	1.38	22.53	81.12	106.86			N/A	N/A
C - B1438 East	11.40	0.14	4.36	30.77	44.37			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.19	0.03	0.34	2.78	5.98			N/A	N/A
B - A12 West	1.43	0.03	0.34	3.27	7.34			N/A	N/A
C - B1438 East	0.88	0.03	0.35	2.07	4.08			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.81	0.03	0.30	1.02	3.85			N/A	N/A
B - A12 West	0.95	0.03	0.29	1.01	4.37			N/A	N/A
C - B1438 East	0.51	0.03	0.29	1.11	2.28			N/A	N/A

## 2028 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	24.74	C

#### 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)	Run automatically
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1408	100.000
B - A12 West		ONE HOUR	✓	1507	100.000
C - B1438 East		ONE HOUR	✓	527	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1240	161
	B - A12 West	1280	2	225
	C - B1438 East	206	321	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	3	2
	B - A12 West	4	0	2
	C - B1438 East	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.93	22.56	9.5	52.3	C	1292	1938
B - A12 West	0.94	23.58	10.7	58.6	C	1383	2074
C - B1438 East	0.87	33.99	5.3	28.4	D	484	726

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1060	265	170	2443	0.434	1057	1120	0.0	0.8	2.593	A
B - A12 West	1134	284	159	2465	0.460	1131	1173	0.0	0.8	2.692	A
C - B1438 East	397	99	938	1099	0.361	395	290	0.0	0.6	5.092	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1266	316	204	2421	0.523	1265	1340	0.8	1.1	3.109	A
B - A12 West	1355	339	191	2446	0.554	1353	1403	0.8	1.2	3.289	A
C - B1438 East	474	118	1122	1010	0.469	473	347	0.6	0.9	6.681	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1550	388	247	1820	0.852	1534	1624	1.1	5.3	11.964	B
B - A12 West	1659	415	231	1911	0.868	1640	1701	1.2	5.9	12.530	B
C - B1438 East	580	145	1360	749	0.774	571	421	0.9	3.1	19.324	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1550	388	247	1676	0.925	1533	1624	5.3	9.5	22.560	C
B - A12 West	1659	415	231	1774	0.935	1640	1701	5.9	10.7	23.581	C
C - B1438 East	580	145	1360	669	0.868	572	420	3.1	5.3	33.993	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1266	316	210	2418	0.524	1300	1381	9.5	1.1	3.316	A
B - A12 West	1355	339	198	2441	0.555	1392	1446	10.7	1.3	3.553	A
C - B1438 East	474	118	1153	995	0.476	491	357	5.3	0.9	7.396	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1060	265	171	2442	0.434	1062	1126	1.1	0.8	2.611	A
B - A12 West	1134	284	161	2464	0.460	1136	1179	1.3	0.9	2.713	A
C - B1438 East	397	99	941	1097	0.362	398	291	0.9	0.6	5.160	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.85	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.56	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.03	0.35	2.62	5.30			N/A	N/A
B - A12 West	1.23	0.03	0.34	2.94	6.15			N/A	N/A
C - B1438 East	0.87	0.05	0.49	1.82	2.67			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.27	0.03	0.33	9.53	27.91			N/A	N/A
B - A12 West	5.94	0.03	0.35	12.37	32.30			N/A	N/A
C - B1438 East	3.13	0.03	0.33	5.92	16.61			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	9.55	0.04	0.41	24.48	52.32			N/A	N/A
B - A12 West	10.69	0.04	0.42	28.19	58.61			N/A	N/A
C - B1438 East	5.28	0.04	0.40	14.01	28.45			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.05	0.46	2.66	4.03			N/A	N/A
B - A12 West	1.26	0.04	0.45	3.14	4.99			N/A	N/A
C - B1438 East	0.92	0.05	0.45	2.03	3.16			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.04	0.36	1.82	3.27			N/A	N/A
B - A12 West	0.86	0.03	0.35	2.00	3.89			N/A	N/A
C - B1438 East	0.57	0.03	0.33	1.23	2.36			N/A	N/A

## 2028 Peak Construction, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.57	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)	Run automatically
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	822	100.000
B - A12 West		ONE HOUR	✓	872	100.000
C - B1438 East		ONE HOUR	✓	128	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	2	791	29
B - A12 West	794	0	79
C - B1438 East	38	91	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	9	0
B - A12 West	9	0	7
C - B1438 East	2	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.38	2.45	0.6	2.7	A	754	1131
B - A12 West	0.40	2.50	0.7	2.6	A	800	1201
C - B1438 East	0.13	3.84	0.2	0.5	A	118	177

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	619	155	59	2391	0.259	617	626	0.0	0.3	2.027	A
B - A12 West	657	164	30	2409	0.273	655	662	0.0	0.4	2.050	A
C - B1438 East	97	24	596	1218	0.079	96	81	0.0	0.1	3.210	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	739	185	71	2383	0.310	739	749	0.3	0.4	2.188	A
B - A12 West	784	196	36	2406	0.326	784	792	0.4	0.5	2.219	A
C - B1438 East	115	29	713	1159	0.099	115	96	0.1	0.1	3.447	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	905	226	86	2373	0.381	904	917	0.4	0.6	2.449	A
B - A12 West	960	240	44	2401	0.400	960	970	0.5	0.7	2.495	A
C - B1438 East	141	35	873	1080	0.131	141	118	0.1	0.1	3.835	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	905	226	87	2373	0.381	905	918	0.6	0.6	2.451	A
B - A12 West	960	240	44	2401	0.400	960	971	0.7	0.7	2.497	A
C - B1438 East	141	35	873	1079	0.131	141	118	0.1	0.2	3.836	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	739	185	71	2383	0.310	740	750	0.6	0.5	2.190	A
B - A12 West	784	196	36	2406	0.326	785	794	0.7	0.5	2.223	A
C - B1438 East	115	29	714	1159	0.100	115	96	0.2	0.1	3.452	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	619	155	59	2390	0.259	619	628	0.5	0.4	2.032	A
B - A12 West	657	164	30	2409	0.273	657	664	0.5	0.4	2.056	A
C - B1438 East	97	24	598	1217	0.079	97	81	0.1	0.1	3.213	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B - A12 West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C - B1438 East	0.09	0.00	0.00	0.09	0.09			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.45	0.00	0.00	0.45	0.45			N/A	N/A
B - A12 West	0.48	0.00	0.00	0.48	0.48			N/A	N/A
C - B1438 East	0.11	0.00	0.00	0.11	0.11			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.61	0.03	0.25	0.61	0.61			N/A	N/A
B - A12 West	0.66	0.03	0.25	0.66	0.66			N/A	N/A
C - B1438 East	0.15	0.03	0.26	0.46	0.49			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.62	0.03	0.29	1.15	2.73			N/A	N/A
B - A12 West	0.66	0.03	0.28	0.86	2.63			N/A	N/A
C - B1438 East	0.15	0.03	0.25	0.45	0.48			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.45	0.00	0.00	0.45	0.45			N/A	N/A
B - A12 West	0.49	0.00	0.00	0.49	0.49			N/A	N/A
C - B1438 East	0.11	0.00	0.00	0.11	0.11			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B - A12 West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - B1438 East	0.09	0.00	0.00	0.09	0.09			N/A	N/A

## 2028 Peak Construction, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	281.23	F

#### 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)	Run automatically
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1306	100.000
B - A12 West		ONE HOUR	✓	1733	100.000
C - B1438 East		ONE HOUR	✓	286	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	11	1247	48
B - A12 West	1511	1	221
C - B1438 East	128	157	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	5	8
B - A12 West	11	0	6
C - B1438 East	2	5	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.12	203.35	80.2	149.7	F	1198	1798
B - A12 West	1.21	358.45	163.4	200.0	F	1590	2385
C - B1438 East	1.01	144.03	12.2	47.1	F	263	394

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	983	246	167	2382	0.413	980	1237	0.0	0.7	2.562	A
B - A12 West	1305	326	105	2337	0.558	1300	1055	0.0	1.3	3.453	A
C - B1438 East	216	54	945	1069	0.202	215	203	0.0	0.3	4.211	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1174	294	200	2361	0.497	1173	1480	0.7	1.0	3.027	A
B - A12 West	1558	389	126	2325	0.670	1555	1262	1.3	2.0	4.655	A
C - B1438 East	257	64	1130	978	0.263	257	243	0.3	0.4	4.992	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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							(Veh/hr)				
A - A12 North	1438	359	205	1287	1.118	1262	1523	1.0	45.0	75.133	F
B - A12 West	1908	477	139	1603	1.190	1589	1362	2.0	81.8	102.384	F
C - B1438 East	315	79	1216	318	0.991	284	251	0.4	8.1	77.395	F

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1438	359	204	1300	1.106	1297	1523	45.0	80.2	182.698	F
B - A12 West	1908	477	146	1582	1.206	1581	1403	81.8	163.4	283.809	F
C - B1438 East	315	79	1250	313	1.007	299	251	8.1	12.2	144.030	F

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1174	294	205	1272	0.923	1257	1522	80.2	59.5	203.350	F
B - A12 West	1558	389	135	1603	0.972	1593	1352	163.4	154.6	358.449	F
C - B1438 East	257	64	1211	302	0.852	275	251	12.2	7.7	132.001	F

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	983	246	208	1139	0.863	1120	1520	59.5	25.3	140.022	F
B - A12 West	1305	326	112	1627	0.802	1617	1195	154.6	76.5	258.825	F
C - B1438 East	216	54	1080	269	0.800	227	249	7.7	4.9	91.550	F

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.04	0.37	1.63	2.74			N/A	N/A
B - A12 West	1.25	0.03	0.34	2.97	6.29			N/A	N/A
C - B1438 East	0.25	0.03	0.25	0.45	0.48			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.98	0.03	0.27	0.98	1.57			N/A	N/A
B - A12 West	2.00	0.03	0.28	2.00	6.43			N/A	N/A
C - B1438 East	0.35	0.03	0.28	0.79	1.48			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	45.04	15.71	41.13	73.62	85.15			N/A	N/A
B - A12 West	81.80	41.85	78.24	118.01	131.30			N/A	N/A
C - B1438 East	8.10	0.33	4.86	18.68	24.76			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	80.23	29.48	73.99	129.98	149.74			N/A	N/A
B - A12 West	163.39	>199	>199	>199	>199			N/A	N/A
C - B1438 East	12.18	0.14	4.80	32.77	47.09			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	59.55	15.46	52.46	105.60	125.18			N/A	N/A
B - A12 West	154.62	>199	>199	>199	>199			N/A	N/A
C - B1438 East	7.67	0.07	1.07	22.14	35.21			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	25.32	8.14	22.75	41.80	48.60			N/A	N/A
B - A12 West	76.52	48.50	74.56	100.33	108.56			N/A	N/A
C - B1438 East	4.92	0.10	1.76	12.80	18.37			N/A	N/A

## 2028 Peak Construction, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	97.68	F

#### 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)	Run automatically
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1597	100.000
B - A12 West		ONE HOUR	✓	1629	100.000
C - B1438 East		ONE HOUR	✓	369	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	13	1459	125
	B - A12 West	1288	2	339
	C - B1438 East	157	212	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	8	8	7
	B - A12 West	12	0	5
	C - B1438 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.06	98.47	55.8	128.9	F	1466	2199
B - A12 West	1.06	97.65	56.6	130.5	F	1495	2243
C - B1438 East	0.98	94.27	10.7	39.2	F	338	508

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1203	301	256	2279	0.528	1198	1093	0.0	1.1	3.318	A
B - A12 West	1227	307	127	2316	0.530	1222	1255	0.0	1.1	3.278	A
C - B1438 East	278	69	1106	964	0.288	276	348	0.0	0.4	5.225	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1436	359	306	2247	0.639	1433	1308	1.1	1.7	4.409	A
B - A12 West	1465	366	152	2301	0.636	1462	1501	1.1	1.7	4.277	A
C - B1438 East	332	83	1323	856	0.387	331	417	0.4	0.6	6.836	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1759	440	353	1704	1.032	1652	1509	1.7	28.4	42.628	E
B - A12 West	1794	448	176	1738	1.032	1686	1731	1.7	28.8	42.198	E
C - B1438 East	406	102	1525	440	0.923	383	481	0.6	6.4	51.003	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1759	440	353	1659	1.060	1649	1509	28.4	55.8	98.470	F
B - A12 West	1794	448	179	1692	1.060	1683	1732	28.8	56.6	97.652	F
C - B1438 East	406	102	1522	413	0.982	389	480	6.4	10.7	94.268	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1436	359	353	2218	0.647	1652	1502	55.8	1.9	9.601	A
B - A12 West	1465	366	171	2290	0.640	1684	1724	56.6	1.8	8.784	A
C - B1438 East	332	83	1524	757	0.438	371	480	10.7	0.8	10.316	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1203	301	258	2278	0.528	1206	1100	1.9	1.1	3.365	A
B - A12 West	1227	307	129	2315	0.530	1229	1263	1.8	1.1	3.323	A
C - B1438 East	278	69	1113	960	0.289	279	351	0.8	0.4	5.297	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.14	1.05	1.71	1.97			N/A	N/A
B - A12 West	1.12	0.15	1.06	1.71	1.97			N/A	N/A
C - B1438 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.75	0.03	0.32	3.42	9.14			N/A	N/A
B - A12 West	1.73	0.03	0.32	3.28	9.01			N/A	N/A
C - B1438 East	0.62	0.04	0.36	1.41	2.42			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	28.43	2.49	21.57	59.70	75.22			N/A	N/A
B - A12 West	28.77	2.53	21.84	60.39	76.08			N/A	N/A
C - B1438 East	6.43	0.09	1.77	17.70	26.38			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	55.80	10.39	46.99	106.17	128.86			N/A	N/A
B - A12 West	56.56	10.60	47.68	107.53	130.49			N/A	N/A
C - B1438 East	10.72	0.17	4.82	27.87	39.17			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.87	0.03	0.33	3.82	9.86			N/A	N/A
B - A12 West	1.81	0.03	0.32	3.55	9.48			N/A	N/A
C - B1438 East	0.79	0.03	0.34	1.85	3.61			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.13	0.03	0.28	1.13	4.23			N/A	N/A
B - A12 West	1.14	0.03	0.28	1.14	4.39			N/A	N/A
C - B1438 East	0.41	0.03	0.28	0.71	1.65			N/A	N/A

## 2028 Peak Construction, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	66.90	F

#### 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)	Run automatically
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1347	100.000
B - A12 West		ONE HOUR	✓	1509	100.000
C - B1438 East		ONE HOUR	✓	437	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	6	1258	83
B - A12 West	1276	1	232
C - B1438 East	168	269	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	9	8
B - A12 West	10	0	2
C - B1438 East	4	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.02	62.80	28.1	93.6	F	1236	1854
B - A12 West	1.03	67.77	34.8	106.1	F	1385	2077
C - B1438 East	0.97	77.05	10.4	40.8	F	401	601

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1014	254	175	2309	0.439	1011	1088	0.0	0.8	2.767	A
B - A12 West	1136	284	130	2351	0.483	1132	1146	0.0	0.9	2.946	A
C - B1438 East	329	82	950	1050	0.313	327	236	0.0	0.5	4.966	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1211	303	209	2288	0.529	1210	1302	0.8	1.1	3.333	A
B - A12 West	1357	339	156	2336	0.581	1355	1372	0.9	1.4	3.663	A
C - B1438 East	393	98	1136	956	0.411	392	282	0.5	0.7	6.370	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1483	371	246	1520	0.976	1428	1532	1.1	14.9	29.884	D
B - A12 West	1661	415	183	1679	0.989	1595	1618	1.4	17.9	31.218	D
C - B1438 East	481	120	1342	535	0.899	460	333	0.7	5.9	40.649	E

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1483	371	246	1459	1.017	1430	1532	14.9	28.1	62.799	F
B - A12 West	1661	415	184	1617	1.028	1594	1622	17.9	34.8	67.767	F
C - B1438 East	481	120	1344	495	0.971	463	333	5.9	10.4	77.046	F

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1211	303	230	2276	0.532	1319	1432	28.1	1.1	4.220	A
B - A12 West	1357	339	172	2327	0.583	1490	1498	34.8	1.4	5.070	A
C - B1438 East	393	98	1239	904	0.434	431	310	10.4	0.8	8.236	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1014	254	176	2308	0.439	1016	1094	1.1	0.8	2.787	A
B - A12 West	1136	284	131	2350	0.483	1138	1153	1.4	0.9	2.973	A
C - B1438 East	329	82	954	1048	0.314	330	237	0.8	0.5	5.022	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.25	0.95	1.39	1.45			N/A	N/A
B - A12 West	0.93	0.23	0.98	1.38	1.38			N/A	N/A
C - B1438 East	0.45	0.00	0.00	0.45	0.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.31	1.95	5.65			N/A	N/A
B - A12 West	1.37	0.03	0.32	2.56	7.05			N/A	N/A
C - B1438 East	0.69	0.04	0.37	1.60	2.68			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	14.89	0.17	6.19	39.87	56.92			N/A	N/A
B - A12 West	17.90	0.28	9.15	45.74	63.22			N/A	N/A
C - B1438 East	5.92	0.06	1.33	16.92	26.79			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	28.09	0.59	16.32	69.30	93.65			N/A	N/A
B - A12 West	34.77	1.02	23.01	80.84	106.06			N/A	N/A
C - B1438 East	10.36	0.12	3.75	28.10	40.76			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.03	0.34	2.66	5.76			N/A	N/A
B - A12 West	1.41	0.03	0.33	3.18	7.26			N/A	N/A
C - B1438 East	0.78	0.03	0.34	1.82	3.52			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.03	0.30	1.49	3.74			N/A	N/A
B - A12 West	0.94	0.03	0.29	1.49	4.33			N/A	N/A
C - B1438 East	0.46	0.03	0.29	1.09	2.00			N/A	N/A

## 2028 Peak Construction, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	6.06	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)	Run automatically
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1339	100.000
B - A12 West		ONE HOUR	✓	1467	100.000
C - B1438 East		ONE HOUR	✓	495	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	7	1201	131
B - A12 West	1272	2	193
C - B1438 East	183	312	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	6	3
B - A12 West	5	0	2
C - B1438 East	2	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.66	4.82	2.0	2.9	A	1229	1843
B - A12 West	0.71	5.43	2.4	4.1	A	1346	2019
C - B1438 East	0.63	11.40	1.7	4.9	B	454	681

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1008	252	146	2399	0.420	1005	1097	0.0	0.7	2.578	A
B - A12 West	1104	276	142	2451	0.451	1101	1137	0.0	0.8	2.660	A
C - B1438 East	373	93	909	1100	0.339	371	243	0.0	0.5	4.919	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1204	301	175	2381	0.506	1203	1313	0.7	1.0	3.052	A
B - A12 West	1319	330	170	2434	0.542	1317	1361	0.8	1.2	3.220	A
C - B1438 East	445	111	1087	1011	0.440	444	291	0.5	0.8	6.333	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1474	369	214	2357	0.626	1472	1606	1.0	1.7	4.057	A
B - A12 West	1615	404	208	2411	0.670	1612	1664	1.2	2.0	4.484	A
C - B1438 East	545	136	1330	890	0.613	542	356	0.8	1.5	10.260	B

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1474	369	214	2218	0.665	1473	1608	1.7	2.0	4.825	A
B - A12 West	1615	404	209	2275	0.710	1614	1667	2.0	2.4	5.430	A
C - B1438 East	545	136	1331	859	0.634	545	356	1.5	1.7	11.404	B

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1204	301	176	2380	0.506	1207	1320	2.0	1.0	3.078	A
B - A12 West	1319	330	172	2433	0.542	1324	1368	2.4	1.2	3.261	A
C - B1438 East	445	111	1091	1009	0.441	449	292	1.7	0.8	6.461	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1008	252	147	2398	0.420	1009	1102	1.0	0.7	2.595	A
B - A12 West	1104	276	143	2450	0.451	1106	1143	1.2	0.8	2.680	A
C - B1438 East	373	93	912	1099	0.339	374	244	0.8	0.5	4.976	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.72	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.82	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.51	0.51	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.06	0.69	2.00	2.89			N/A	N/A
B - A12 West	1.17	0.05	0.52	2.75	4.05			N/A	N/A
C - B1438 East	0.78	0.08	0.81	1.36	1.36			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.65	0.03	0.26	1.65	1.65			N/A	N/A
B - A12 West	2.00	0.03	0.26	2.00	2.00			N/A	N/A
C - B1438 East	1.54	0.03	0.27	1.54	2.12			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.95	0.03	0.26	1.95	1.95			N/A	N/A
B - A12 West	2.40	0.03	0.27	2.40	2.40			N/A	N/A
C - B1438 East	1.69	0.03	0.28	1.69	4.91			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.45	1.04	1.15	1.59			N/A	N/A
B - A12 West	1.19	0.22	1.13	1.75	1.97			N/A	N/A
C - B1438 East	0.80	0.08	0.81	1.49	1.50			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.73	0.09	0.81	1.40	1.48			N/A	N/A
B - A12 West	0.83	0.07	0.79	1.24	1.70			N/A	N/A
C - B1438 East	0.52	0.04	0.42	1.34	1.47			N/A	N/A

## 2034 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.42	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)	Run automatically
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	889	100.000
B - A12 West		ONE HOUR	✓	718	100.000
C - B1438 East		ONE HOUR	✓	79	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	2	873	14
B - A12 West	717	0	1
C - B1438 East	38	41	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	9	0
B - A12 West	8	0	0
C - B1438 East	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.40	2.50	0.7	2.6	A	816	1224
B - A12 West	0.33	2.21	0.5	2.0	A	659	988
C - B1438 East	0.08	3.62	0.1	0.5	A	73	109

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	669	167	0.90	2421	0.276	668	568	0.0	0.4	2.051	A
B - A12 West	540	135	30	2428	0.223	539	686	0.0	0.3	1.906	A
C - B1438 East	60	15	657	1240	0.048	59	12	0.0	0.1	3.048	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	799	200	1	2421	0.330	799	680	0.4	0.5	2.219	A
B - A12 West	645	161	36	2424	0.266	645	821	0.3	0.4	2.023	A
C - B1438 East	71	18	786	1173	0.061	71	14	0.1	0.1	3.267	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	979	245	1	2421	0.404	978	832	0.5	0.7	2.494	A
B - A12 West	790	198	44	2420	0.327	790	1005	0.4	0.5	2.208	A
C - B1438 East	87	22	962	1081	0.081	87	17	0.1	0.1	3.622	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	979	245	1	2421	0.404	979	833	0.7	0.7	2.496	A
B - A12 West	790	198	44	2420	0.327	790	1006	0.5	0.5	2.209	A
C - B1438 East	87	22	963	1080	0.081	87	17	0.1	0.1	3.623	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	799	200	1	2421	0.330	800	681	0.7	0.5	2.221	A
B - A12 West	645	161	36	2424	0.266	646	822	0.5	0.4	2.024	A
C - B1438 East	71	18	787	1172	0.061	71	14	0.1	0.1	3.271	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	669	167	0.91	2421	0.276	670	570	0.5	0.4	2.057	A
B - A12 West	540	135	30	2428	0.223	541	689	0.4	0.3	1.910	A
C - B1438 East	60	15	659	1239	0.048	60	12	0.1	0.1	3.051	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - A12 West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - B1438 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A12 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - B1438 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.68	0.03	0.25	0.68	0.68			N/A	N/A
B - A12 West	0.48	0.03	0.25	0.48	0.48			N/A	N/A
C - B1438 East	0.09	0.03	0.26	0.47	0.49			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.68	0.03	0.28	0.77	2.58			N/A	N/A
B - A12 West	0.48	0.03	0.31	1.43	2.02			N/A	N/A
C - B1438 East	0.09	0.00	0.00	0.09	0.09			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A12 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - B1438 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - A12 West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - B1438 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 2034 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	352.82	F

#### 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)	Run automatically
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1429	100.000
B - A12 West		ONE HOUR	✓	1691	100.000
C - B1438 East		ONE HOUR	✓	221	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	11	1418	0
	B - A12 West	1643	1	47
	C - B1438 East	96	124	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	5	0
	B - A12 West	7	0	1
	C - B1438 East	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.17	297.40	116.4	188.4	F	1312	1968
B - A12 West	1.23	423.05	178.2	200.0	F	1552	2327
C - B1438 East	0.99	153.86	9.9	41.6	F	203	305

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1076	269	37	2486	0.433	1073	1313	0.0	0.8	2.543	A
B - A12 West	1273	318	81	2430	0.524	1269	1159	0.0	1.1	3.088	A
C - B1438 East	167	42	1074	1043	0.160	166	36	0.0	0.2	4.102	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1285	321	44	2481	0.518	1284	1571	0.8	1.1	3.004	A
B - A12 West	1520	380	97	2421	0.628	1518	1386	1.1	1.7	3.975	A
C - B1438 East	199	50	1285	937	0.212	199	43	0.2	0.3	4.876	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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							(Veh/hr)				
A - A12 North	1574	393	44	1346	1.169	1328	1575	1.1	62.6	94.297	F
B - A12 West	1862	465	106	1527	1.219	1514	1441	1.7	88.7	114.564	F
C - B1438 East	244	61	1329	249	0.980	218	43	0.3	6.8	85.513	F

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1574	393	44	1360	1.158	1359	1576	62.6	116.4	244.340	F
B - A12 West	1862	465	112	1508	1.234	1508	1479	88.7	177.1	322.109	F
C - B1438 East	244	61	1359	246	0.992	231	43	6.8	9.9	153.859	F

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1285	321	44	1351	0.951	1340	1575	116.4	102.7	297.402	F
B - A12 West	1520	380	104	1520	1.000	1516	1450	177.1	178.2	423.046	F
C - B1438 East	199	50	1341	239	0.831	213	43	9.9	6.4	137.615	F

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1076	269	45	1272	0.846	1260	1574	102.7	56.7	229.591	F
B - A12 West	1273	318	86	1541	0.826	1533	1348	178.2	113.3	343.308	F
C - B1438 East	167	42	1261	211	0.791	173	44	6.4	4.7	105.405	F

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.03	0.32	1.55	3.68			N/A	N/A
B - A12 West	1.09	0.03	0.29	1.45	4.81			N/A	N/A
C - B1438 East	0.19	0.03	0.25	0.45	0.48			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.03	0.27	1.07	1.07			N/A	N/A
B - A12 West	1.67	0.03	0.27	1.67	1.67			N/A	N/A
C - B1438 East	0.27	0.03	0.28	0.50	1.45			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	62.55	28.55	59.04	93.97	105.84			N/A	N/A
B - A12 West	88.66	47.08	85.14	126.04	139.61			N/A	N/A
C - B1438 East	6.77	0.24	3.80	15.92	21.38			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	116.40	58.95	111.39	169.09	188.42			N/A	N/A
B - A12 West	177.12	>199	>199	>199	>199			N/A	N/A
C - B1438 East	9.88	0.10	2.74	27.72	41.56			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	102.68	43.64	96.40	158.94	180.49			N/A	N/A
B - A12 West	178.22	>199	>199	>199	>199			N/A	N/A
C - B1438 East	6.42	0.05	0.75	18.51	31.52			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	56.74	23.71	53.01	87.87	99.91			N/A	N/A
B - A12 West	113.29	56.98	108.33	164.99	184.00			N/A	N/A
C - B1438 East	4.70	0.07	1.45	12.95	19.69			N/A	N/A

## 2034 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	153.96	F

#### 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)	Run automatically
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1614	100.000
B - A12 West		ONE HOUR	✓	1605	100.000
C - B1438 East		ONE HOUR	✓	368	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	13	1503	98
B - A12 West	1420	2	182
C - B1438 East	142	226	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	8	7	8
B - A12 West	7	0	2
C - B1438 East	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.11	158.04	89.2	160.7	F	1481	2221
B - A12 West	1.11	154.09	86.6	158.1	F	1473	2209
C - B1438 East	1.03	134.35	15.1	45.5	F	338	506

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1215	304	138	2372	0.512	1211	1182	0.0	1.0	3.088	A
B - A12 West	1208	302	116	2412	0.501	1204	1298	0.0	1.0	2.970	A
C - B1438 East	277	69	1139	990	0.280	275	210	0.0	0.4	5.030	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1451	363	166	2355	0.616	1448	1414	1.0	1.6	3.960	A
B - A12 West	1443	361	139	2399	0.601	1441	1553	1.0	1.5	3.749	A
C - B1438 East	331	83	1362	876	0.378	330	251	0.4	0.6	6.582	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1777	444	184	1634	1.087	1603	1571	1.6	44.8	61.207	F
B - A12 West	1767	442	156	1631	1.083	1599	1723	1.5	43.5	59.814	F
C - B1438 East	405	101	1508	410	0.988	371	279	0.6	9.1	67.491	F

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1777	444	183	1602	1.109	1599	1572	44.8	89.2	158.038	F
B - A12 West	1767	442	160	1598	1.106	1595	1725	43.5	86.6	154.092	F
C - B1438 East	405	101	1504	395	1.026	381	278	9.1	15.1	134.346	F

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1451	363	184	1631	0.889	1613	1571	89.2	48.6	153.381	F
B - A12 West	1443	361	151	1623	0.889	1604	1724	86.6	46.2	148.750	F
C - B1438 East	331	83	1517	386	0.856	359	280	15.1	8.1	117.928	F

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1215	304	160	2359	0.515	1405	1360	48.6	1.1	4.663	A
B - A12 West	1208	302	130	2404	0.503	1389	1499	46.2	1.0	4.282	A
C - B1438 East	277	69	1322	897	0.309	308	243	8.1	0.5	6.435	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.04	0.09	0.94	1.76	2.22			N/A	N/A
B - A12 West	1.00	0.09	0.92	1.66	1.97			N/A	N/A
C - B1438 East	0.39	0.00	0.00	0.39	0.39			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.59	0.03	0.30	2.08	7.69			N/A	N/A
B - A12 West	1.49	0.03	0.30	1.82	7.07			N/A	N/A
C - B1438 East	0.60	0.03	0.33	1.31	2.62			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	44.85	12.86	39.96	77.35	90.96			N/A	N/A
B - A12 West	43.52	11.95	38.56	75.87	89.55			N/A	N/A
C - B1438 East	9.05	0.24	4.91	22.02	29.90			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	89.23	35.82	83.19	140.71	160.73			N/A	N/A
B - A12 West	86.55	33.67	80.40	137.93	158.10			N/A	N/A
C - B1438 East	15.08	0.69	9.74	34.67	45.51			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	48.59	48.05	48.50	48.90	48.95			N/A	N/A
B - A12 West	46.22	45.05	45.50	46.22	46.22			N/A	N/A
C - B1438 East	8.13	4.12	7.42	10.82	11.92			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.03	0.28	1.07	2.82			N/A	N/A
B - A12 West	1.02	0.03	0.28	1.02	2.77			N/A	N/A
C - B1438 East	0.45	0.03	0.28	0.50	1.65			N/A	N/A

## 2034 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	54.43	F

#### 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)	Run automatically
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1364	100.000
B - A12 West		ONE HOUR	✓	1601	100.000
C - B1438 East		ONE HOUR	✓	520	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	6	1331	27
B - A12 West	1322	1	277
C - B1438 East	153	367	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	6	24
B - A12 West	7	0	0
C - B1438 East	4	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.00	49.59	21.7	85.8	E	1252	1878
B - A12 West	1.01	53.71	28.3	101.8	F	1469	2204
C - B1438 East	0.97	70.15	11.2	46.2	F	477	715

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1027	257	209	2335	0.440	1024	1111	0.0	0.8	2.739	A
B - A12 West	1205	301	119	2440	0.494	1201	1274	0.0	1.0	2.898	A
C - B1438 East	391	98	1004	1056	0.370	389	229	0.0	0.6	5.374	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1226	307	250	2310	0.531	1225	1330	0.8	1.1	3.313	A
B - A12 West	1439	360	142	2426	0.593	1437	1525	1.0	1.4	3.635	A
C - B1438 East	467	117	1202	957	0.488	466	273	0.6	0.9	7.310	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1502	375	297	1580	0.950	1460	1580	1.1	11.7	24.451	C
B - A12 West	1763	441	168	1819	0.969	1709	1814	1.4	14.8	25.622	D
C - B1438 East	572	143	1432	633	0.904	550	325	0.9	6.4	36.911	E

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1502	375	297	1507	0.997	1462	1580	11.7	21.7	49.593	E
B - A12 West	1763	441	169	1745	1.010	1709	1817	14.8	28.3	53.710	F
C - B1438 East	572	143	1434	588	0.973	553	325	6.4	11.2	70.150	F

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1226	307	269	2299	0.534	1309	1433	21.7	1.2	3.951	A
B - A12 West	1439	360	155	2418	0.595	1547	1636	28.3	1.5	4.680	A
C - B1438 East	467	117	1283	915	0.510	508	294	11.2	1.1	9.721	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1027	257	210	2334	0.440	1028	1118	1.2	0.8	2.761	A
B - A12 West	1205	301	120	2439	0.494	1207	1282	1.5	1.0	2.925	A
C - B1438 East	391	98	1009	1054	0.371	393	230	1.1	0.6	5.462	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.41	0.97	1.40	1.45			N/A	N/A
B - A12 West	0.97	0.33	1.01	1.44	1.44			N/A	N/A
C - B1438 East	0.58	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.32	2.18	5.72			N/A	N/A
B - A12 West	1.44	0.03	0.32	2.86	7.50			N/A	N/A
C - B1438 East	0.94	0.04	0.40	2.29	3.80			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	11.67	0.08	2.41	33.58	52.03			N/A	N/A
B - A12 West	14.80	0.12	4.89	41.11	60.55			N/A	N/A
C - B1438 East	6.35	0.06	1.37	18.22	28.93			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	21.69	0.17	8.42	59.34	85.77			N/A	N/A
B - A12 West	28.34	0.34	14.32	73.37	101.84			N/A	N/A
C - B1438 East	11.22	0.11	3.47	31.20	46.24			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.04	0.35	2.82	5.58			N/A	N/A
B - A12 West	1.49	0.03	0.35	3.64	7.58			N/A	N/A
C - B1438 East	1.06	0.04	0.36	2.65	4.96			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.03	0.30	1.34	3.86			N/A	N/A
B - A12 West	0.98	0.03	0.30	1.42	4.78			N/A	N/A
C - B1438 East	0.60	0.03	0.29	1.24	2.72			N/A	N/A

## 2034 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	5.18	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)	Run automatically
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1398	100.000
B - A12 West		ONE HOUR	✓	1593	100.000
C - B1438 East		ONE HOUR	✓	443	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1310	81
	B - A12 West	1328	2	263
	C - B1438 East	109	334	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	2	2
	B - A12 West	3	0	0
	C - B1438 East	3	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.65	4.25	1.8	3.4	A	1283	1925
B - A12 West	0.70	4.80	2.3	5.1	A	1462	2192
C - B1438 East	0.57	9.58	1.3	3.5	A	407	610

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	199	2445	0.431	1050	1083	0.0	0.8	2.575	A
B - A12 West	1199	300	87	2528	0.474	1196	1235	0.0	0.9	2.695	A
C - B1438 East	334	83	990	1089	0.306	332	258	0.0	0.4	4.743	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	238	2420	0.519	1256	1296	0.8	1.1	3.089	A
B - A12 West	1432	358	104	2518	0.569	1430	1478	0.9	1.3	3.307	A
C - B1438 East	398	100	1185	994	0.401	397	309	0.4	0.7	6.024	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1539	385	291	2387	0.645	1537	1585	1.1	1.8	4.220	A
B - A12 West	1754	438	127	2503	0.701	1750	1808	1.3	2.3	4.752	A
C - B1438 East	488	122	1450	865	0.564	485	378	0.7	1.3	9.431	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1539	385	292	2386	0.645	1539	1589	1.8	1.8	4.250	A
B - A12 West	1754	438	128	2503	0.701	1754	1813	2.3	2.3	4.801	A
C - B1438 East	488	122	1452	863	0.565	488	379	1.3	1.3	9.578	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	239	2419	0.520	1260	1302	1.8	1.1	3.111	A
B - A12 West	1432	358	105	2517	0.569	1436	1485	2.3	1.3	3.343	A
C - B1438 East	398	100	1189	992	0.401	401	310	1.3	0.7	6.109	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	200	2444	0.431	1054	1088	1.1	0.8	2.591	A
B - A12 West	1199	300	88	2528	0.474	1201	1241	1.3	0.9	2.716	A
C - B1438 East	334	83	994	1087	0.307	335	259	0.7	0.4	4.790	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.75	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.90	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.44	0.00	0.00	0.44	0.44			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.05	0.62	2.34	3.39			N/A	N/A
B - A12 West	1.31	0.05	0.47	3.26	5.06			N/A	N/A
C - B1438 East	0.66	0.08	0.79	1.37	1.44			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.79	0.03	0.26	1.79	1.79			N/A	N/A
B - A12 West	2.30	0.03	0.27	2.30	2.30			N/A	N/A
C - B1438 East	1.26	0.03	0.27	1.26	1.26			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.81	0.03	0.26	1.81	1.81			N/A	N/A
B - A12 West	2.32	0.03	0.26	2.32	2.32			N/A	N/A
C - B1438 East	1.28	0.03	0.28	1.28	3.49			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.32	1.07	1.47	1.76			N/A	N/A
B - A12 West	1.33	0.16	1.18	2.08	2.73			N/A	N/A
C - B1438 East	0.68	0.08	0.79	1.37	1.45			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.08	0.80	1.26	1.26			N/A	N/A
B - A12 West	0.91	0.06	0.75	1.65	2.10			N/A	N/A
C - B1438 East	0.45	0.04	0.38	1.22	1.37			N/A	N/A

## 2034 Operational Led, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	2.42	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)	Run automatically
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	890	100.000
B - A12 West		ONE HOUR	✓	719	100.000
C - B1438 East		ONE HOUR	✓	79	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	2	874	14
	B - A12 West	718	0	1
	C - B1438 East	38	41	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	9	0
	B - A12 West	8	0	0
	C - B1438 East	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.40	2.50	0.7	2.6	A	817	1225
B - A12 West	0.33	2.21	0.5	2.0	A	660	989
C - B1438 East	0.08	3.63	0.1	0.5	A	73	109

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	670	167	0.89	2421	0.277	668	569	0.0	0.4	2.052	A
B - A12 West	541	135	30	2428	0.223	540	687	0.0	0.3	1.907	A
C - B1438 East	60	15	658	1240	0.048	59	12	0.0	0.1	3.049	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	800	200	1	2421	0.330	800	681	0.4	0.5	2.220	A
B - A12 West	646	162	36	2425	0.267	646	822	0.3	0.4	2.024	A
C - B1438 East	71	18	787	1172	0.061	71	14	0.1	0.1	3.268	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	980	245	1	2421	0.405	979	833	0.5	0.7	2.495	A
B - A12 West	791	198	44	2420	0.327	791	1007	0.4	0.5	2.210	A
C - B1438 East	87	22	963	1080	0.081	87	17	0.1	0.1	3.624	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	980	245	1	2421	0.405	980	834	0.7	0.7	2.497	A
B - A12 West	791	198	44	2420	0.327	791	1007	0.5	0.5	2.210	A
C - B1438 East	87	22	964	1080	0.081	87	17	0.1	0.1	3.625	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	800	200	1	2421	0.330	801	681	0.7	0.5	2.222	A
B - A12 West	646	162	36	2424	0.267	647	823	0.5	0.4	2.025	A
C - B1438 East	71	18	788	1172	0.061	71	14	0.1	0.1	3.273	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	670	167	0.90	2421	0.277	670	571	0.5	0.4	2.056	A
B - A12 West	541	135	30	2428	0.223	541	689	0.4	0.3	1.910	A
C - B1438 East	60	15	660	1239	0.048	60	12	0.1	0.1	3.052	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - A12 West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - B1438 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - A12 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - B1438 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.68	0.03	0.25	0.68	0.68			N/A	N/A
B - A12 West	0.48	0.03	0.25	0.48	0.48			N/A	N/A
C - B1438 East	0.09	0.03	0.26	0.47	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.68	0.03	0.28	0.76	2.57			N/A	N/A
B - A12 West	0.49	0.03	0.31	1.43	2.03			N/A	N/A
C - B1438 East	0.09	0.00	0.00	0.09	0.09			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.50	0.00	0.00	0.50	0.50			N/A	N/A
B - A12 West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - B1438 East	0.07	0.00	0.00	0.07	0.07			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - A12 West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - B1438 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 2034 Operational Led, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	343.13	F

#### 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)	Run automatically
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1342	100.000
B - A12 West		ONE HOUR	✓	1689	100.000
C - B1438 East		ONE HOUR	✓	221	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	11	1331	0
B - A12 West	1640	1	48
C - B1438 East	96	124	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	5	0
B - A12 West	7	0	1
C - B1438 East	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.16	271.63	101.8	172.3	F	1232	1847
B - A12 West	1.23	422.30	177.7	200.0	F	1550	2325
C - B1438 East	0.99	151.83	9.7	41.5	F	203	305

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1011	253	37	2478	0.408	1008	1311	0.0	0.7	2.444	A
B - A12 West	1272	318	81	2428	0.524	1267	1093	0.0	1.1	3.090	A
C - B1438 East	167	42	1009	1074	0.155	166	37	0.0	0.2	3.960	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1207	302	45	2474	0.488	1206	1569	0.7	0.9	2.836	A
B - A12 West	1518	380	97	2419	0.628	1516	1308	1.1	1.7	3.977	A
C - B1438 East	199	50	1207	974	0.204	199	44	0.2	0.3	4.641	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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							(Veh/hr)				
A - A12 North	1478	369	45	1278	1.156	1258	1574	0.9	55.8	89.764	F
B - A12 West	1860	465	106	1525	1.219	1512	1371	1.7	88.5	114.463	F
C - B1438 East	244	61	1259	250	0.977	218	44	0.3	6.7	84.464	F

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1478	369	44	1295	1.141	1294	1574	55.8	101.8	227.383	F
B - A12 West	1860	465	112	1507	1.234	1506	1414	88.5	176.8	321.774	F
C - B1438 East	244	61	1295	246	0.990	231	44	6.7	9.7	151.833	F

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1207	302	45	1279	0.944	1266	1574	101.8	86.9	271.633	F
B - A12 West	1518	380	104	1519	1.000	1515	1376	176.8	177.7	422.301	F
C - B1438 East	199	50	1267	240	0.829	213	44	9.7	6.3	135.354	F

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1011	253	45	1184	0.853	1171	1573	86.9	46.9	207.878	F
B - A12 West	1272	318	86	1540	0.826	1532	1259	177.7	112.7	342.336	F
C - B1438 East	167	42	1172	211	0.788	174	44	6.3	4.6	103.470	F

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.69	0.03	0.32	1.47	3.21			N/A	N/A
B - A12 West	1.09	0.03	0.29	1.46	4.83			N/A	N/A
C - B1438 East	0.18	0.03	0.25	0.45	0.48			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.95	0.03	0.26	0.95	0.95			N/A	N/A
B - A12 West	1.67	0.03	0.27	1.67	1.67			N/A	N/A
C - B1438 East	0.26	0.03	0.28	0.50	1.41			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	55.62	23.87	52.28	85.90	97.38			N/A	N/A
B - A12 West	88.48	46.97	84.96	125.80	139.33			N/A	N/A
C - B1438 East	6.69	0.22	3.65	15.90	21.47			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	101.83	47.06	96.49	153.06	172.32			N/A	N/A
B - A12 West	176.77	>199	>199	>199	>199			N/A	N/A
C - B1438 East	9.75	0.09	2.50	27.46	41.48			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	86.91	32.08	80.21	140.68	161.97			N/A	N/A
B - A12 West	177.73	>199	>199	>199	>199			N/A	N/A
C - B1438 East	6.33	0.05	0.76	18.27	31.07			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	46.88	17.09	43.05	75.65	87.14			N/A	N/A
B - A12 West	112.72	56.76	107.80	164.07	182.93			N/A	N/A
C - B1438 East	4.61	0.08	1.10	12.57	18.81			N/A	N/A

## 2034 Operational Led, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	155.60	F

#### 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)	Run automatically
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1613	100.000
B - A12 West		ONE HOUR	✓	1711	100.000
C - B1438 East		ONE HOUR	✓	359	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - A12 West	C - B1438 East	
A - A12 North	13	1528	72	
B - A12 West	1420	2	289	
C - B1438 East	140	219	0	

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - A12 West	C - B1438 East	
A - A12 North	8	7	10	
B - A12 West	8	0	1	
C - B1438 East	2	0	0	

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.11	156.61	88.2	159.8	F	1480	2220
B - A12 West	1.11	160.01	95.9	169.6	F	1570	2355
C - B1438 East	1.02	128.55	14.0	43.8	F	329	494

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1214	303	218	2322	0.523	1210	1180	0.0	1.1	3.225	A
B - A12 West	1288	322	114	2411	0.534	1284	1312	0.0	1.1	3.180	A
C - B1438 East	270	68	1157	980	0.276	269	271	0.0	0.4	5.049	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1450	362	261	2296	0.631	1447	1411	1.1	1.7	4.230	A
B - A12 West	1538	385	137	2398	0.642	1536	1569	1.1	1.8	4.163	A
C - B1438 East	323	81	1385	865	0.373	322	324	0.4	0.6	6.612	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1775	444	289	1634	1.086	1603	1563	1.7	44.7	61.179	F
B - A12 West	1884	471	154	1727	1.090	1698	1743	1.8	48.3	61.785	F
C - B1438 East	395	99	1534	404	0.979	363	358	0.6	8.5	65.799	F

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1775	444	288	1604	1.107	1601	1564	44.7	88.2	156.614	F
B - A12 West	1884	471	158	1696	1.111	1693	1747	48.3	95.9	160.009	F
C - B1438 East	395	99	1532	389	1.016	373	357	8.5	14.0	128.546	F

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1450	362	290	1623	0.893	1605	1563	88.2	49.3	153.758	F
B - A12 West	1538	385	149	1722	0.893	1704	1735	95.9	54.3	157.971	F
C - B1438 East	323	81	1536	380	0.850	348	359	14.0	7.6	110.609	F

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1214	303	255	2299	0.528	1407	1373	49.3	1.1	5.076	A
B - A12 West	1288	322	128	2403	0.536	1501	1517	54.3	1.2	5.142	A
C - B1438 East	270	68	1346	884	0.306	299	316	7.6	0.4	6.450	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.09	0.96	1.84	2.43			N/A	N/A
B - A12 West	1.14	0.09	0.98	1.95	2.66			N/A	N/A
C - B1438 East	0.38	0.00	0.00	0.38	0.38			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.69	0.03	0.31	2.55	8.46			N/A	N/A
B - A12 West	1.77	0.03	0.31	2.60	8.79			N/A	N/A
C - B1438 East	0.59	0.03	0.33	1.29	2.52			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	44.68	12.70	39.76	77.16	90.77			N/A	N/A
B - A12 West	48.27	14.73	43.38	81.98	95.92			N/A	N/A
C - B1438 East	8.55	0.20	4.36	21.19	29.08			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	88.19	34.95	82.10	139.70	159.82			N/A	N/A
B - A12 West	95.90	40.21	89.88	149.12	169.60			N/A	N/A
C - B1438 East	13.96	0.47	8.55	32.92	43.75			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	49.30	48.05	48.50	49.30	49.30			N/A	N/A
B - A12 West	54.31	53.05	53.50	54.31	54.31			N/A	N/A
C - B1438 East	7.56	3.66	6.84	10.09	11.17			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.13	0.03	0.28	1.13	2.98			N/A	N/A
B - A12 West	1.17	0.03	0.28	1.17	2.96			N/A	N/A
C - B1438 East	0.44	0.03	0.28	0.57	1.68			N/A	N/A

## 2034 Operational Led, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	54.39	F

#### 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)	Run automatically
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1363	100.000
B - A12 West		ONE HOUR	✓	1600	100.000
C - B1438 East		ONE HOUR	✓	521	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	6	1281	76
B - A12 West	1322	1	276
C - B1438 East	153	368	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 West	C - B1438 East
A - A12 North	0	7	9
B - A12 West	7	0	0
C - B1438 East	4	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	1.00	49.85	21.8	86.0	E	1251	1876
B - A12 West	1.01	53.95	28.5	101.9	F	1468	2202
C - B1438 East	0.97	68.36	10.9	45.6	F	478	717

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1026	257	208	2333	0.440	1023	1111	0.0	0.8	2.741	A
B - A12 West	1205	301	119	2440	0.494	1201	1237	0.0	1.0	2.897	A
C - B1438 East	392	98	967	1074	0.365	390	265	0.0	0.6	5.245	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	249	2309	0.531	1224	1330	0.8	1.1	3.314	A
B - A12 West	1438	360	143	2426	0.593	1436	1481	1.0	1.4	3.633	A
C - B1438 East	468	117	1157	978	0.479	467	316	0.6	0.9	7.028	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1501	375	296	1578	0.951	1458	1580	1.1	11.7	24.556	C
B - A12 West	1762	440	169	1817	0.969	1708	1762	1.4	14.9	25.717	D
C - B1438 East	573	143	1378	637	0.900	552	376	0.9	6.2	36.058	E

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1501	375	296	1505	0.997	1461	1580	11.7	21.8	49.847	E
B - A12 West	1762	440	169	1743	1.011	1707	1765	14.9	28.5	53.954	F
C - B1438 East	573	143	1380	591	0.969	554	376	6.2	10.9	68.357	F

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	268	2297	0.533	1308	1433	21.8	1.2	3.959	A
B - A12 West	1438	360	155	2418	0.595	1546	1589	28.5	1.5	4.680	A
C - B1438 East	468	117	1236	937	0.499	508	340	10.9	1.0	9.161	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1026	257	209	2333	0.440	1028	1118	1.2	0.8	2.761	A
B - A12 West	1205	301	120	2439	0.494	1207	1245	1.5	1.0	2.924	A
C - B1438 East	392	98	971	1072	0.366	394	266	1.0	0.6	5.322	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.41	0.97	1.40	1.45			N/A	N/A
B - A12 West	0.97	0.32	1.01	1.43	1.43			N/A	N/A
C - B1438 East	0.57	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.32	2.17	5.72			N/A	N/A
B - A12 West	1.44	0.03	0.32	2.86	7.49			N/A	N/A
C - B1438 East	0.91	0.04	0.39	2.17	3.67			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	11.72	0.08	2.47	33.72	52.16			N/A	N/A
B - A12 West	14.86	0.13	4.96	41.24	60.67			N/A	N/A
C - B1438 East	6.20	0.06	1.25	17.82	28.61			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	21.80	0.18	8.56	59.55	85.96			N/A	N/A
B - A12 West	28.47	0.34	14.49	73.52	101.87			N/A	N/A
C - B1438 East	10.93	0.10	3.20	30.58	45.61			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.04	0.35	2.82	5.59			N/A	N/A
B - A12 West	1.48	0.03	0.35	3.63	7.57			N/A	N/A
C - B1438 East	1.02	0.04	0.36	2.52	4.73			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.03	0.30	1.33	3.86			N/A	N/A
B - A12 West	0.98	0.03	0.30	1.42	4.78			N/A	N/A
C - B1438 East	0.58	0.03	0.29	1.27	2.69			N/A	N/A

## 2034 Operational Led, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J26	A12 / B1438	Standard Roundabout	A, C, B	5.20	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)	Run automatically
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1398	100.000
B - A12 West		ONE HOUR	✓	1593	100.000
C - B1438 East		ONE HOUR	✓	446	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	7	1310	81
	B - A12 West	1325	2	265
	C - B1438 East	109	337	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 West	C - B1438 East
From	A - A12 North	0	2	2
	B - A12 West	3	0	0
	C - B1438 East	3	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.65	4.26	1.8	3.4	A	1283	1925
B - A12 West	0.70	4.80	2.3	5.1	A	1462	2192
C - B1438 East	0.57	9.66	1.3	3.5	A	409	614

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	201	2444	0.431	1050	1082	0.0	0.8	2.577	A
B - A12 West	1199	300	87	2528	0.474	1196	1238	0.0	0.9	2.696	A
C - B1438 East	336	84	990	1089	0.308	334	260	0.0	0.4	4.757	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	240	2419	0.520	1256	1294	0.8	1.1	3.092	A
B - A12 West	1432	358	104	2517	0.569	1430	1481	0.9	1.3	3.308	A
C - B1438 East	401	100	1185	994	0.403	400	311	0.4	0.7	6.051	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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A - A12 North	1539	385	294	2385	0.645	1537	1583	1.1	1.8	4.228	A
B - A12 West	1754	438	127	2503	0.701	1750	1811	1.3	2.3	4.754	A
C - B1438 East	491	123	1450	865	0.568	489	381	0.7	1.3	9.509	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1539	385	294	2385	0.646	1539	1587	1.8	1.8	4.258	A
B - A12 West	1754	438	128	2503	0.701	1754	1816	2.3	2.3	4.803	A
C - B1438 East	491	123	1452	864	0.569	491	381	1.3	1.3	9.662	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	241	2418	0.520	1260	1300	1.8	1.1	3.117	A
B - A12 West	1432	358	105	2517	0.569	1436	1487	2.3	1.3	3.344	A
C - B1438 East	401	100	1189	992	0.404	404	312	1.3	0.7	6.140	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	202	2443	0.431	1054	1087	1.1	0.8	2.595	A
B - A12 West	1199	300	88	2527	0.474	1201	1244	1.3	0.9	2.716	A
C - B1438 East	336	84	994	1087	0.309	337	261	0.7	0.5	4.803	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.75	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 West	0.90	0.55	1.00	1.40	1.45			N/A	N/A
C - B1438 East	0.44	0.00	0.00	0.44	0.44			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.05	0.61	2.35	3.40			N/A	N/A
B - A12 West	1.31	0.05	0.47	3.26	5.06			N/A	N/A
C - B1438 East	0.67	0.08	0.79	1.37	1.44			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.80	0.03	0.26	1.80	1.80			N/A	N/A
B - A12 West	2.30	0.03	0.27	2.30	2.30			N/A	N/A
C - B1438 East	1.28	0.03	0.27	1.28	1.28			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.81	0.03	0.26	1.81	1.81			N/A	N/A
B - A12 West	2.32	0.03	0.26	2.32	2.32			N/A	N/A
C - B1438 East	1.30	0.03	0.28	1.30	3.51			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.32	1.07	1.48	1.77			N/A	N/A
B - A12 West	1.33	0.16	1.18	2.08	2.73			N/A	N/A
C - B1438 East	0.69	0.08	0.79	1.38	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.08	0.80	1.27	1.27			N/A	N/A
B - A12 West	0.91	0.06	0.75	1.65	2.10			N/A	N/A
C - B1438 East	0.45	0.04	0.39	1.23	1.37			N/A	N/A

<b>Junctions 9</b>
<b>ARCADY 9 - Roundabout Module</b>
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Filename: 2020.07.23\_J27\_Model\_CV\_SENS v16.j9  
 Path: C:\Users\UKVXG007\Desktop\SZC\v16a No FI Sensitivity\J27\_sens\Model  
 Report generation date: 17/12/2020 18:04:16

- »2019 Base Year, 6-7 AM
- »2019 Base Year, 7-8 AM
- »2019 Base Year, 8-9 AM
- »2019 Base Year, 3-4 PM
- »2019 Base Year, 5-6 PM
- »2023 Reference Case, 6-7 AM
- »2023 Reference Case, 7-8 AM
- »2023 Reference Case, 8-9 AM
- »2023 Reference Case, 3-4 PM
- »2023 Reference Case, 5-6 PM
- »2023 Early Years, 6-7 AM
- »2023 Early Years, 7-8 AM
- »2023 Early Years, 8-9 AM
- »2023 Early Years, 3-4 PM
- »2023 Early Years, 5-6 PM
- »2028 Reference Case, 6-7 AM
- »2028 Reference Case, 7-8 AM
- »2028 Reference Case, 8-9 AM
- »2028 Reference Case, 3-4 PM
- »2028 Reference Case, 5-6 PM
- »2028 Peak Construction, 6-7 AM
- »2028 Peak Construction, 7-8 AM
- »2028 Peak Construction, 8-9 AM
- »2028 Peak Construction, 3-4 PM
- »2028 Peak Construction, 5-6 PM
- »2034 Reference Case, 6-7 AM
- »2034 Reference Case, 7-8 AM
- »2034 Reference Case, 8-9 AM
- »2034 Reference Case, 3-4 PM
- »2034 Reference Case, 5-6 PM
- »2034 Operational Led, 6-7 AM
- »2034 Operational Led, 7-8 AM
- »2034 Operational Led, 8-9 AM
- »2034 Operational Led, 3-4 PM
- »2034 Operational Led, 5-6 PM

**Summary of junction performance**

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
<b>2019 Base Year</b>																									
A - A12 North	0.5	1.7	1.96	0.31	A	2.1	4.5	4.39	0.68	A	6.6	33.7	12.87	0.88	B	2.1	4.1	4.66	0.68	A	1.4	2.1	3.37	0.59	A
B - Grundisburgh Rd West	0.1	0.5	3.14	0.06	A	0.4	1.1	6.51	0.28	A	3.2	16.0	24.80	0.78	C	1.4	5.3	13.23	0.58	B	0.7	3.3	8.30	0.41	A
C - A12 South	0.3	1.4	2.17	0.26	A	2.2	4.0	5.71	0.69	A	4.7	21.4	11.24	0.83	B	3.8	13.4	8.68	0.79	A	2.8	5.8	6.48	0.74	A
D - B1079 East	0.1	0.5	3.42	0.06	A	0.4	1.5	7.51	0.28	A	3.3	17.4	31.66	0.78	D	1.0	4.3	9.99	0.51	A	0.5	2.5	6.45	0.36	A
<b>2023 Reference Case</b>																									
A - A12 North	0.5	2.0	2.00	0.32	A	2.4	5.2	4.79	0.71	A	7.9	40.0	15.09	0.89	C	2.3	4.8	5.08	0.70	A	1.7	3.0	3.77	0.63	A
B - Grundisburgh Rd West	0.1	0.5	3.22	0.06	A	0.4	1.5	7.18	0.30	A	4.0	21.5	32.23	0.82	D	1.5	5.8	14.16	0.60	B	0.7	3.6	8.71	0.43	A
C - A12 South	0.4	1.1	2.21	0.28	A	2.7	5.4	6.75	0.73	A	7.0	35.6	16.14	0.88	C	3.9	14.3	8.95	0.80	A	2.9	5.9	6.63	0.75	A
D - B1079 East	0.1	0.5	3.46	0.07	A	0.4	1.5	8.23	0.31	A	4.3	23.4	41.30	0.84	E	1.3	5.0	11.85	0.57	B	0.6	3.1	7.40	0.40	A
<b>2023 Early Years</b>																									
A - A12 North	0.5	2.1	2.01	0.33	A	2.5	5.5	4.99	0.72	A	7.7	39.0	14.88	0.89	B	2.6	5.6	5.66	0.73	A	2.1	4.3	4.39	0.68	A
B - Grundisburgh Rd West	0.1	0.5	3.46	0.07	A	0.7	3.4	10.99	0.42	B	7.2	36.0	58.02	0.91	F	1.6	6.4	15.17	0.62	C	0.7	3.2	8.38	0.40	A
C - A12 South	0.5	2.3	2.46	0.34	A	6.1	31.5	13.61	0.87	B	11.5	63.3	26.53	0.93	D	4.0	15.9	9.48	0.80	A	3.0	6.1	6.89	0.75	A
D - B1079 East	0.1	0.5	3.48	0.07	A	0.5	1.8	8.72	0.33	A	4.5	24.0	42.20	0.84	E	1.5	5.9	13.59	0.60	B	0.8	3.6	8.55	0.43	A
<b>2028 Reference Case</b>																									
A - A12 North	0.5	2.1	2.02	0.33	A	2.5	5.6	5.06	0.72	A	8.8	43.7	16.94	0.91	C	2.8	5.9	5.87	0.74	A	2.0	3.9	4.19	0.66	A
B - Grundisburgh Rd West	0.1	0.5	3.27	0.07	A	0.5	1.9	7.98	0.33	A	7.4	37.3	57.60	0.92	F	2.2	9.5	19.04	0.70	C	0.9	3.9	9.60	0.47	A
C - A12 South	0.4	1.5	2.25	0.29	A	3.4	10.1	7.98	0.78	A	14.0	75.2	30.43	0.95	D	4.5	20.0	10.36	0.82	B	3.2	7.7	7.20	0.76	A
D - B1079 East	0.1	0.5	3.50	0.08	A	0.5	1.8	8.75	0.33	A	5.3	27.9	50.02	0.87	F	1.9	7.8	16.21	0.66	C	0.8	3.6	8.46	0.43	A
<b>2028 Peak Construction</b>																									
A - A12 North	0.5	2.2	2.04	0.34	A	2.6	5.7	5.12	0.72	A	8.1	40.7	15.65	0.90	C	3.8	11.5	7.52	0.80	A	2.2	4.7	4.62	0.69	A
B - Grundisburgh Rd West	0.1	0.5	3.72	0.08	A	0.6	3.0	10.72	0.40	B	10.6	45.1	77.73	0.96	F	2.1	9.0	18.21	0.69	C	0.8	3.7	8.98	0.44	A
C - A12 South	0.7	2.7	2.65	0.40	A	6.6	34.1	14.44	0.87	B	11.6	63.9	26.55	0.93	D	4.1	16.9	9.88	0.81	A	3.0	6.3	6.97	0.75	A
D - B1079 East	0.1	0.5	3.52	0.08	A	0.5	1.9	8.87	0.33	A	4.8	25.9	45.82	0.85	E	2.0	8.9	18.84	0.67	C	0.9	4.1	9.70	0.48	A
<b>2034 Reference Case</b>																									
A - A12 North	0.6	2.8	2.24	0.38	A	3.0	6.4	6.15	0.75	A	11.3	62.8	22.57	0.93	C	3.5	8.7	7.05	0.78	A	3.1	6.7	5.82	0.76	A
B - Grundisburgh Rd West	0.1	0.5	3.53	0.08	A	0.8	3.9	12.15	0.45	B	54.2	93.6	290.52	1.21	F	3.2	15.6	23.85	0.77	C	1.2	4.4	10.73	0.54	B
C - A12 South	0.5	2.6	2.46	0.35	A	7.9	40.1	16.58	0.90	C	22.5	97.1	46.36	0.98	E	4.7	21.5	10.93	0.83	B	3.6	11.8	8.24	0.79	A
D - B1079 East	0.1	0.5	3.71	0.09	A	0.6	2.8	9.30	0.38	A	9.1	41.7	69.95	0.94	F	2.0	8.5	17.57	0.67	C	1.1	4.8	11.84	0.52	B
<b>2034 Operational Led</b>																									
A - A12 North	0.6	2.8	2.24	0.38	A	3.0	6.4	6.13	0.75	A	10.9	60.1	21.23	0.93	C	3.4	8.6	7.03	0.78	A	3.0	6.7	5.79	0.75	A
B - Grundisburgh Rd West	0.1	0.5	3.52	0.08	A	0.8	3.8	12.02	0.44	B	46.3	85.4	253.35	1.18	F	3.1	15.5	23.74	0.77	C	1.2	4.4	10.76	0.54	B
C - A12 South	0.5	2.6	2.46	0.35	A	7.8	39.9	16.50	0.89	C	22.4	96.9	46.45	0.98	E	4.7	21.4	10.90	0.83	B	3.6	11.7	8.22	0.79	A
D - B1079 East	0.1	0.5	3.72	0.09	A	0.6	2.8	9.31	0.38	A	9.9	43.2	76.05	0.95	F	2.0	8.4	17.47	0.67	C	1.1	4.8	11.81	0.52	B

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

<b>Title</b>	A12 / B1079 Grundisburgh Road
<b>Location</b>	52° 5'45.80"N, 1°17'54.03"E
<b>Site number</b>	27
<b>Date</b>	02/04/2019
<b>Version</b>	
<b>Status</b>	Skeleton Model
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	SR
<b>Description</b>	

## Units

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

## Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

## Analysis Set Details

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

## 2019 Base Year, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.16	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description
A	A12 North	
B	Grundisburgh Rd West	
C	A12 South	
D	B1079 East	

#### 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
A - A12 North	7.40	7.40	0.0	32.9	55.1	9.0	
B - Grundisburgh Rd West	2.70	6.10	12.0	22.1	55.1	13.5	
C - A12 South	6.70	7.80	5.2	25.1	55.1	3.5	
D - B1079 East	2.60	7.10	11.6	26.6	55.1	6.5	

#### Slope / Intercept / Capacity

##### Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A12 North	Direct		425
B - Grundisburgh Rd West	Direct		200
C - A12 South	Direct		100
D - B1079 East	Direct		250

##### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.745	2874
B - Grundisburgh Rd West	0.554	1642
C - A12 South	0.749	2556
D - B1079 East	0.578	1775

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

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	752	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	62	100.000
C - A12 South		ONE HOUR	✓	528	100.000
D - B1079 East		ONE HOUR	✓	63	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	63	676	8
	B - Grundisburgh Rd West	17	0	34	11
	C - A12 South	484	32	2	10
	D - B1079 East	20	15	28	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	2	7	0
	B - Grundisburgh Rd West	0	0	12	0
	C - A12 South	11	3	0	0
	D - B1079 East	10	0	18	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.31	1.96	0.5	1.7	A	690	1035
B - Grundisburgh Rd West	0.06	3.14	0.1	0.5	A	57	85
C - A12 South	0.26	2.17	0.3	1.4	A	485	727
D - B1079 East	0.06	3.42	0.1	0.5	A	58	87

### Main Results for each time segment

#### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	566	142	43	2679	0.211	565	395	0.0	0.3	1.702	A
B - Grundisburgh Rd West	47	12	391	1318	0.035	47	83	0.0	0.0	2.832	A
C - A12 South	398	99	77	2265	0.176	397	556	0.0	0.2	1.925	A
D - B1079 East	47	12	586	1274	0.037	47	22	0.0	0.0	2.934	A

#### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	676	169	51	2673	0.253	676	473	0.3	0.3	1.802	A
B - Grundisburgh Rd West	56	14	468	1273	0.044	56	99	0.0	0.0	2.955	A
C - A12 South	475	119	93	2254	0.211	474	665	0.2	0.3	2.022	A
D - B1079 East	57	14	701	1210	0.047	57	26	0.0	0.0	3.119	A

#### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	828	207	63	2664	0.311	828	579	0.3	0.4	1.960	A
B - Grundisburgh Rd West	68	17	573	1213	0.056	68	121	0.0	0.1	3.144	A
C - A12 South	581	145	113	2240	0.260	581	814	0.3	0.3	2.170	A
D - B1079 East	69	17	858	1123	0.062	69	32	0.0	0.1	3.414	A

#### 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	828	207	63	2664	0.311	828	579	0.4	0.5	1.960	A
B - Grundisburgh Rd West	68	17	574	1213	0.056	68	121	0.1	0.1	3.145	A
C - A12 South	581	145	113	2240	0.260	581	815	0.3	0.3	2.170	A
D - B1079 East	69	17	859	1123	0.062	69	32	0.1	0.1	3.415	A

#### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	676	169	51	2673	0.253	676	473	0.5	0.3	1.805	A
B - Grundisburgh Rd West	56	14	469	1273	0.044	56	99	0.1	0.0	2.959	A
C - A12 South	475	119	93	2254	0.211	475	666	0.3	0.3	2.023	A
D - B1079 East	57	14	702	1210	0.047	57	26	0.1	0.0	3.123	A

#### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	566	142	43	2679	0.211	566	396	0.3	0.3	1.706	A
B - Grundisburgh Rd West	47	12	392	1317	0.035	47	83	0.0	0.0	2.833	A
C - A12 South	398	99	78	2265	0.176	398	557	0.3	0.2	1.929	A
D - B1079 East	47	12	588	1273	0.037	47	22	0.0	0.0	2.939	A

### Queue Variation Results for each time segment

#### 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.21	0.00	0.00	0.21	0.21			N/A	N/A
D - B1079 East	0.04	0.00	0.00	0.04	0.04			N/A	N/A

#### 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - B1079 East	0.05	0.03	0.25	0.45	0.48			N/A	N/A

#### 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.45	0.03	0.25	0.45	0.48			N/A	N/A
B - Grundisburgh Rd West	0.06	0.03	0.26	0.46	0.49			N/A	N/A
C - A12 South	0.35	0.03	0.25	0.45	0.48			N/A	N/A
D - B1079 East	0.07	0.03	0.26	0.47	0.49			N/A	N/A

#### 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.45	0.03	0.33	1.40	1.73			N/A	N/A
B - Grundisburgh Rd West	0.06	0.00	0.00	0.06	0.06			N/A	N/A

C - A12 South	0.35	0.03	0.33	1.15	1.38			N/A	N/A
D - B1079 East	0.07	0.00	0.00	0.07	0.07			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.27	0.00	0.00	0.27	0.27			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.21	0.00	0.00	0.21	0.21			N/A	N/A
D - B1079 East	0.04	0.00	0.00	0.04	0.04			N/A	N/A



## 2019 Base Year, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	5.20	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)	Run automatically
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1594	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	191	100.000
C - A12 South		ONE HOUR	✓	1258	100.000
D - B1079 East		ONE HOUR	✓	167	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	285	1261	41
	B - Grundisburgh Rd West	35	0	96	60
	C - A12 South	1113	76	2	67
	D - B1079 East	74	53	40	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	4	4	0
	B - Grundisburgh Rd West	6	0	6	3
	C - A12 South	10	4	0	0
	D - B1079 East	1	0	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.68	4.39	2.1	4.5	A	1463	2194
B - Grundisburgh Rd West	0.28	6.51	0.4	1.1	A	175	263
C - A12 South	0.69	5.71	2.2	4.0	A	1154	1732
D - B1079 East	0.28	7.51	0.4	1.5	A	153	230

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1200	300	169	2634	0.456	1197	922	0.0	0.8	2.499	A
B - Grundisburgh Rd West	144	36	948	1017	0.141	143	311	0.0	0.2	4.117	A
C - A12 South	947	237	314	2120	0.447	944	1050	0.0	0.8	3.055	A
D - B1079 East	126	31	1239	1004	0.125	125	126	0.0	0.1	4.094	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1433	358	202	2610	0.549	1431	1103	0.8	1.2	3.051	A
B - Grundisburgh Rd West	172	43	1134	910	0.189	171	372	0.2	0.2	4.872	A
C - A12 South	1131	283	376	2076	0.545	1129	1256	0.8	1.2	3.796	A
D - B1079 East	150	38	1483	861	0.174	150	151	0.1	0.2	5.065	A

## 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1755	439	247	2576	0.681	1751	1349	1.2	2.1	4.345	A
B - Grundisburgh Rd West	210	53	1387	765	0.275	210	455	0.2	0.4	6.474	A
C - A12 South	1385	346	460	2017	0.687	1381	1537	1.2	2.2	5.631	A
D - B1079 East	184	46	1814	665	0.276	183	184	0.2	0.4	7.454	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1755	439	248	2576	0.681	1755	1353	2.1	2.1	4.385	A
B - Grundisburgh Rd West	210	53	1390	763	0.276	210	456	0.4	0.4	6.512	A
C - A12 South	1385	346	461	2016	0.687	1385	1540	2.2	2.2	5.705	A
D - B1079 East	184	46	1818	663	0.277	184	185	0.4	0.4	7.509	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1433	358	203	2609	0.549	1437	1109	2.1	1.2	3.079	A
B - Grundisburgh Rd West	172	43	1139	907	0.189	172	373	0.4	0.2	4.904	A
C - A12 South	1131	283	378	2075	0.545	1135	1261	2.2	1.2	3.846	A
D - B1079 East	150	38	1488	857	0.175	151	152	0.4	0.2	5.098	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1200	300	170	2634	0.456	1202	927	1.2	0.8	2.518	A
B - Grundisburgh Rd West	144	36	952	1014	0.142	144	312	0.2	0.2	4.139	A
C - A12 South	947	237	316	2119	0.447	949	1055	1.2	0.8	3.080	A
D - B1079 East	126	31	1245	1001	0.126	126	127	0.2	0.1	4.116	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.83	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C - A12 South	0.80	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.14	0.00	0.00	0.14	0.14			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.21	0.05	0.48	2.90	4.49			N/A	N/A
B - Grundisburgh Rd West	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - A12 South	1.19	0.05	0.56	2.75	4.02			N/A	N/A
D - B1079 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.11	0.03	0.26	2.11	2.11			N/A	N/A
B - Grundisburgh Rd West	0.38	0.03	0.25	0.46	0.48			N/A	N/A
C - A12 South	2.15	0.03	0.27	2.15	2.15			N/A	N/A
D - B1079 East	0.38	0.03	0.26	0.46	0.48			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.12	0.03	0.26	2.12	2.12			N/A	N/A
B - Grundisburgh Rd West	0.38	0.03	0.33	1.07	1.07			N/A	N/A
C - A12 South	2.17	0.03	0.26	2.17	2.17			N/A	N/A
D - B1079 East	0.38	0.03	0.33	1.24	1.49			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.23	0.21	1.15	1.80	2.09			N/A	N/A
B - Grundisburgh Rd West	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A12 South	1.21	0.13	1.10	1.90	2.49			N/A	N/A
D - B1079 East	0.21	0.00	0.00	0.21	0.21			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.84	0.07	0.79	1.33	1.77			N/A	N/A
B - Grundisburgh Rd West	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C - A12 South	0.81	0.06	0.65	1.47	1.91			N/A	N/A
D - B1079 East	0.14	0.00	0.00	0.14	0.14			N/A	N/A

## 2019 Base Year, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	15.19	C

#### 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)	Run automatically
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1756	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	446	100.000
C - A12 South		ONE HOUR	✓	1406	100.000
D - B1079 East		ONE HOUR	✓	355	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	16	373	1298	69
B - Grundisburgh Rd West	61	0	185	200
C - A12 South	1077	89	1	239
D - B1079 East	154	71	130	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	13	3	7	1
B - Grundisburgh Rd West	15	0	4	1
C - A12 South	11	6	0	4
D - B1079 East	2	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.88	12.87	6.6	33.7	B	1611	2417
B - Grundisburgh Rd West	0.78	24.80	3.2	16.0	C	409	614
C - A12 South	0.83	11.24	4.7	21.4	B	1290	1935
D - B1079 East	0.78	31.66	3.3	17.4	D	326	489

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1322	331	468	2366	0.559	1317	980	0.0	1.3	3.415	A
B - Grundisburgh Rd West	336	84	1115	935	0.359	334	400	0.0	0.6	5.960	A
C - A12 South	1059	265	460	2017	0.525	1054	1210	0.0	1.1	3.722	A
D - B1079 East	267	67	1404	895	0.298	266	381	0.0	0.4	5.701	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1579	395	560	2300	0.686	1575	1173	1.3	2.2	4.943	A
B - Grundisburgh Rd West	401	100	1333	809	0.496	399	478	0.6	1.0	8.761	A
C - A12 South	1264	316	550	1953	0.647	1261	1447	1.1	1.8	5.178	A
D - B1079 East	319	80	1680	730	0.437	318	455	0.4	0.8	8.710	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1933	483	679	2214	0.873	1917	1427	2.2	6.3	11.543	B
B - Grundisburgh Rd West	491	123	1623	640	0.767	483	581	1.0	3.0	21.860	C
C - A12 South	1548	387	667	1871	0.827	1537	1758	1.8	4.5	10.462	B
D - B1079 East	391	98	2043	511	0.765	382	553	0.8	2.9	26.483	D

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1933	483	687	2208	0.876	1932	1439	6.3	6.6	12.868	B
B - Grundisburgh Rd West	491	123	1636	633	0.776	490	586	3.0	3.2	24.798	C
C - A12 South	1548	387	675	1866	0.830	1547	1775	4.5	4.7	11.242	B
D - B1079 East	391	98	2060	500	0.781	389	559	2.9	3.3	31.662	D

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1579	395	571	2291	0.689	1596	1190	6.6	2.3	5.305	A
B - Grundisburgh Rd West	401	100	1352	798	0.502	410	486	3.2	1.0	9.470	A
C - A12 South	1264	316	562	1945	0.650	1275	1471	4.7	1.9	5.460	A
D - B1079 East	319	80	1704	715	0.446	329	463	3.3	0.8	9.553	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1322	331	473	2363	0.560	1326	988	2.3	1.3	3.484	A
B - Grundisburgh Rd West	336	84	1123	931	0.361	338	403	1.0	0.6	6.088	A
C - A12 South	1059	265	464	2014	0.526	1062	1219	1.9	1.1	3.793	A
D - B1079 East	267	67	1415	889	0.301	269	384	0.8	0.4	5.818	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.26	0.56	1.16	1.60	1.81			N/A	N/A
B - Grundisburgh Rd West	0.55	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.09	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.42	0.00	0.00	0.42	0.42			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.15	0.04	0.40	5.82	10.61			N/A	N/A
B - Grundisburgh Rd West	0.97	0.06	0.68	1.89	2.70			N/A	N/A
C - A12 South	1.80	0.04	0.43	4.85	8.18			N/A	N/A
D - B1079 East	0.76	0.05	0.56	1.39	1.88			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	6.26	0.03	0.34	12.09	33.67			N/A	N/A
B - Grundisburgh Rd West	2.98	0.03	0.33	6.11	15.95			N/A	N/A
C - A12 South	4.49	0.03	0.31	5.39	21.38			N/A	N/A
D - B1079 East	2.89	0.03	0.35	6.57	15.51			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	6.64	0.03	0.30	6.64	24.43			N/A	N/A
B - Grundisburgh Rd West	3.23	0.03	0.31	4.33	15.78			N/A	N/A
C - A12 South	4.69	0.03	0.28	4.69	11.17			N/A	N/A
D - B1079 East	3.25	0.03	0.34	6.60	17.44			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.25	0.05	0.49	6.12	9.87			N/A	N/A
B - Grundisburgh Rd West	1.03	0.05	0.46	2.43	3.72			N/A	N/A
C - A12 South	1.89	0.05	0.69	4.86	7.45			N/A	N/A
D - B1079 East	0.82	0.04	0.42	1.84	2.85			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.28	0.03	0.34	2.93	6.53			N/A	N/A
B - Grundisburgh Rd West	0.57	0.03	0.32	1.18	2.53			N/A	N/A
C - A12 South	1.12	0.04	0.36	2.78	5.31			N/A	N/A
D - B1079 East	0.43	0.03	0.31	1.32	1.85			N/A	N/A

## 2019 Base Year, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	7.57	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)	Run automatically
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1466	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	340	100.000
C - A12 South		ONE HOUR	✓	1448	100.000
D - B1079 East		ONE HOUR	✓	344	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	14	225	1129	98
	B - Grundisburgh Rd West	70	1	141	128
	C - A12 South	1200	125	3	120
	D - B1079 East	164	95	85	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	71	4	7	3
	B - Grundisburgh Rd West	6	0	4	2
	C - A12 South	7	5	0	1
	D - B1079 East	2	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.68	4.66	2.1	4.1	A	1345	2018
B - Grundisburgh Rd West	0.58	13.23	1.4	5.3	B	312	468
C - A12 South	0.79	8.68	3.8	13.4	A	1329	1993
D - B1079 East	0.51	9.99	1.0	4.3	A	316	473

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1104	276	294	2486	0.444	1101	1086	0.0	0.8	2.593	A
B - Grundisburgh Rd West	256	64	1126	944	0.271	254	335	0.0	0.4	5.209	A
C - A12 South	1090	273	374	2138	0.510	1086	1019	0.0	1.0	3.412	A
D - B1079 East	299	65	1135	1061	0.244	258	259	0.0	0.3	4.475	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1318	329	352	2444	0.539	1316	1299	0.8	1.2	3.187	A
B - Grundisburgh Rd West	306	76	1347	819	0.373	305	400	0.4	0.6	6.989	A
C - A12 South	1302	325	448	2083	0.625	1299	1219	1.0	1.6	4.578	A
D - B1079 East	309	77	1358	926	0.334	309	310	0.3	0.5	5.829	A

15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1614	404	430	2389	0.676	1611	1586	1.2	2.1	4.604	A
B - Grundisburgh Rd West	374	94	1644	651	0.575	371	489	0.6	1.3	12.766	B
C - A12 South	1594	399	547	2009	0.793	1586	1491	1.6	3.7	8.347	A
D - B1079 East	379	95	1661	742	0.511	377	379	0.5	1.0	9.805	A

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1614	404	433	2387	0.676	1614	1594	2.1	2.1	4.658	A
B - Grundisburgh Rd West	374	94	1652	646	0.579	374	491	1.3	1.4	13.227	B
C - A12 South	1594	399	549	2008	0.794	1594	1495	3.7	3.8	8.677	A
D - B1079 East	379	95	1666	739	0.512	379	381	1.0	1.0	9.985	A

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1318	329	356	2441	0.540	1321	1310	2.1	1.2	3.226	A
B - Grundisburgh Rd West	306	76	1358	813	0.376	309	403	1.4	0.6	7.184	A
C - A12 South	1302	325	451	2081	0.626	1310	1225	3.8	1.7	4.718	A
D - B1079 East	309	77	1365	922	0.336	311	313	1.0	0.5	5.920	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1104	276	297	2484	0.444	1105	1093	1.2	0.8	2.615	A
B - Grundisburgh Rd West	256	64	1133	940	0.272	257	336	0.6	0.4	5.276	A
C - A12 South	1090	273	376	2136	0.510	1093	1024	1.7	1.1	3.458	A
D - B1079 East	259	65	1141	1058	0.245	260	261	0.5	0.3	4.516	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C - A12 South	1.03	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.32	0.00	0.00	0.32	0.32			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.16	0.05	0.49	2.74	4.07			N/A	N/A
B - Grundisburgh Rd West	0.59	0.07	0.70	1.34	1.42			N/A	N/A
C - A12 South	1.64	0.04	0.44	4.36	7.23			N/A	N/A
D - B1079 East	0.50	0.05	0.46	1.28	1.39			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.05	0.03	0.26	2.05	2.05			N/A	N/A
B - Grundisburgh Rd West	1.31	0.03	0.27	1.31	1.76			N/A	N/A
C - A12 South	3.68	0.03	0.29	3.68	13.40			N/A	N/A
D - B1079 East	1.02	0.03	0.26	1.02	1.02			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.07	0.03	0.26	2.07	2.07			N/A	N/A
B - Grundisburgh Rd West	1.35	0.03	0.29	1.35	5.33			N/A	N/A
C - A12 South	3.77	0.03	0.27	3.77	3.95			N/A	N/A
D - B1079 East	1.04	0.03	0.29	1.21	4.26			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.18	0.20	1.11	1.75	1.97			N/A	N/A
B - Grundisburgh Rd West	0.61	0.06	0.64	1.35	1.44			N/A	N/A
C - A12 South	1.69	0.06	0.91	4.00	5.83			N/A	N/A
D - B1079 East	0.51	0.05	0.49	1.30	1.40			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.80	0.07	0.75	1.22	1.71			N/A	N/A
B - Grundisburgh Rd West	0.38	0.03	0.34	1.13	1.33			N/A	N/A
C - A12 South	1.05	0.04	0.40	2.64	4.44			N/A	N/A
D - B1079 East	0.33	0.03	0.28	0.52	1.01			N/A	N/A

## 2019 Base Year, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	5.36	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)	Run automatically
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1379	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	275	100.000
C - A12 South		ONE HOUR	✓	1454	100.000
D - B1079 East		ONE HOUR	✓	280	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	5	195	1103	76
B - Grundisburgh Rd West	63	0	90	122
C - A12 South	1260	131	0	63
D - B1079 East	118	98	64	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	0	1	3	3
B - Grundisburgh Rd West	0	0	1	0
C - A12 South	3	2	0	5
D - B1079 East	0	1	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.59	3.37	1.4	2.1	A	1265	1898
B - Grundisburgh Rd West	0.41	8.30	0.7	3.3	A	252	379
C - A12 South	0.74	6.48	2.8	5.8	A	1334	2001
D - B1079 East	0.36	6.45	0.5	2.5	A	257	385

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1038	260	206	2656	0.391	1036	1085	0.0	0.6	2.215	A
B - Grundisburgh Rd West	207	52	1085	1023	0.202	206	318	0.0	0.3	4.401	A
C - A12 South	1095	274	312	2263	0.484	1091	944	0.0	0.9	3.060	A
D - B1079 East	211	53	1046	1153	0.183	210	196	0.0	0.2	3.812	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1240	310	247	2626	0.472	1239	1298	0.6	0.9	2.594	A
B - Grundisburgh Rd West	247	62	1298	902	0.274	247	381	0.3	0.4	5.487	A
C - A12 South	1307	327	374	2218	0.589	1305	1129	0.9	1.4	3.934	A
D - B1079 East	252	63	1251	1033	0.244	251	234	0.2	0.3	4.606	A

## 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1518	380	302	2586	0.587	1516	1587	0.9	1.4	3.359	A
B - Grundisburgh Rd West	303	76	1587	739	0.410	302	466	0.4	0.7	8.202	A
C - A12 South	1601	400	457	2157	0.742	1595	1382	1.4	2.8	6.351	A
D - B1079 East	308	77	1531	868	0.355	307	286	0.3	0.5	6.415	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1518	380	303	2585	0.587	1518	1592	1.4	1.4	3.374	A
B - Grundisburgh Rd West	303	76	1592	736	0.411	303	467	0.7	0.7	8.303	A
C - A12 South	1601	400	458	2156	0.743	1601	1384	2.8	2.8	6.481	A
D - B1079 East	308	77	1534	866	0.356	308	287	0.5	0.5	6.451	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1240	310	248	2625	0.472	1242	1305	1.4	0.9	2.608	A
B - Grundisburgh Rd West	247	62	1305	898	0.275	248	382	0.7	0.4	5.552	A
C - A12 South	1307	327	375	2217	0.590	1313	1132	2.8	1.5	4.005	A
D - B1079 East	252	63	1255	1030	0.244	253	236	0.5	0.3	4.634	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1038	260	208	2655	0.391	1039	1091	0.9	0.6	2.230	A
B - Grundisburgh Rd West	207	52	1091	1020	0.203	208	320	0.4	0.3	4.436	A
C - A12 South	1095	274	314	2262	0.484	1097	947	1.5	0.9	3.096	A
D - B1079 East	211	53	1050	1151	0.183	211	197	0.3	0.2	3.834	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.64	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - A12 South	0.93	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.22	0.00	0.00	0.22	0.22			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.89	0.06	0.72	1.64	2.12			N/A	N/A
B - Grundisburgh Rd West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C - A12 South	1.42	0.05	0.45	3.65	5.82			N/A	N/A
D - B1079 East	0.32	0.00	0.00	0.32	0.32			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.41	0.03	0.26	1.41	1.41			N/A	N/A
B - Grundisburgh Rd West	0.68	0.03	0.26	0.68	0.68			N/A	N/A
C - A12 South	2.81	0.03	0.27	2.81	4.74			N/A	N/A
D - B1079 East	0.55	0.03	0.25	0.55	0.55			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.42	0.03	0.26	1.42	1.42			N/A	N/A
B - Grundisburgh Rd West	0.69	0.03	0.30	1.00	3.33			N/A	N/A
C - A12 South	2.84	0.03	0.27	2.84	2.84			N/A	N/A
D - B1079 East	0.55	0.03	0.31	1.01	2.52			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.90	0.54	1.00	1.40	1.46			N/A	N/A
B - Grundisburgh Rd West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A12 South	1.45	0.09	1.11	2.86	3.85			N/A	N/A
D - B1079 East	0.33	0.00	0.00	0.33	0.33			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.64	0.11	0.85	1.37	1.44			N/A	N/A
B - Grundisburgh Rd West	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - A12 South	0.94	0.05	0.48	2.01	3.03			N/A	N/A
D - B1079 East	0.23	0.00	0.00	0.23	0.23			N/A	N/A



## 2023 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.21	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)	Run automatically
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	787	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	69	100.000
C - A12 South		ONE HOUR	✓	580	100.000
D - B1079 East		ONE HOUR	✓	72	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	5	67	706	10
B - Grundisburgh Rd West	20	0	37	12
C - A12 South	529	36	2	14
D - B1079 East	23	17	33	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	0	1	6	0
B - Grundisburgh Rd West	0	0	11	0
C - A12 South	9	3	0	0
D - B1079 East	9	0	15	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.32	2.00	0.5	2.0	A	722	1083
B - Grundisburgh Rd West	0.06	3.22	0.1	0.5	A	63	95
C - A12 South	0.28	2.21	0.4	1.1	A	532	798
D - B1079 East	0.07	3.46	0.1	0.5	A	66	99

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	592	148	49	2685	0.221	591	433	0.0	0.3	1.719	A
B - Grundisburgh Rd West	52	13	430	1307	0.040	52	89	0.0	0.0	2.868	A
C - A12 South	437	109	84	2291	0.191	436	584	0.0	0.2	1.939	A
D - B1079 East	54	14	613	1279	0.043	54	26	0.0	0.0	2.938	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	707	177	58	2678	0.264	707	518	0.3	0.4	1.825	A
B - Grundisburgh Rd West	62	16	514	1259	0.049	62	107	0.0	0.1	3.007	A
C - A12 South	521	130	100	2279	0.229	521	699	0.2	0.3	2.047	A
D - B1079 East	65	16	734	1212	0.054	65	32	0.0	0.1	3.137	A

## 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	866	217	71	2668	0.325	866	635	0.4	0.5	1.997	A
B - Grundisburgh Rd West	76	19	630	1193	0.064	76	131	0.1	0.1	3.223	A
C - A12 South	638	160	122	2263	0.282	638	855	0.3	0.4	2.215	A
D - B1079 East	80	20	898	1120	0.071	79	39	0.1	0.1	3.459	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	866	217	71	2668	0.325	866	635	0.5	0.5	1.997	A
B - Grundisburgh Rd West	76	19	630	1193	0.064	76	131	0.1	0.1	3.223	A
C - A12 South	638	160	122	2263	0.282	638	856	0.4	0.4	2.215	A
D - B1079 East	80	20	899	1120	0.071	80	39	0.1	0.1	3.460	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	707	177	58	2678	0.264	708	519	0.5	0.4	1.829	A
B - Grundisburgh Rd West	62	16	515	1258	0.049	62	107	0.1	0.1	3.011	A
C - A12 South	521	130	100	2279	0.229	522	699	0.4	0.3	2.048	A
D - B1079 East	65	16	734	1212	0.054	65	32	0.1	0.1	3.141	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	592	148	49	2685	0.221	593	434	0.4	0.3	1.722	A
B - Grundisburgh Rd West	52	13	431	1306	0.040	52	89	0.1	0.0	2.870	A
C - A12 South	437	109	84	2291	0.191	437	586	0.3	0.2	1.943	A
D - B1079 East	54	14	615	1278	0.043	54	26	0.1	0.0	2.940	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.23	0.00	0.00	0.23	0.23			N/A	N/A
D - B1079 East	0.04	0.00	0.00	0.04	0.04			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.36	0.00	0.00	0.36	0.36			N/A	N/A
B - Grundisburgh Rd West	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - B1079 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.48	0.03	0.25	0.48	0.48			N/A	N/A
B - Grundisburgh Rd West	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.39	0.03	0.25	0.45	0.48			N/A	N/A
D - B1079 East	0.08	0.03	0.26	0.47	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.48	0.03	0.32	1.44	1.96			N/A	N/A
B - Grundisburgh Rd West	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A12 South	0.39	0.03	0.33	1.15	1.15			N/A	N/A
D - B1079 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.36	0.00	0.00	0.36	0.36			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.24	0.00	0.00	0.24	0.24			N/A	N/A
D - B1079 East	0.04	0.00	0.00	0.04	0.04			N/A	N/A

## 2023 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	5.90	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)	Run automatically
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1635	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	192	100.000
C - A12 South		ONE HOUR	✓	1335	100.000
D - B1079 East		ONE HOUR	✓	175	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	290	1294	44
	B - Grundisburgh Rd West	36	0	96	61
	C - A12 South	1177	82	2	74
	D - B1079 East	76	55	45	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	4	5	0
	B - Grundisburgh Rd West	6	0	6	3
	C - A12 South	11	4	0	0
	D - B1079 East	1	0	7	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.71	4.79	2.4	5.2	A	1500	2250
B - Grundisburgh Rd West	0.30	7.18	0.4	1.5	A	176	264
C - A12 South	0.73	6.75	2.7	5.4	A	1225	1838
D - B1079 East	0.31	8.23	0.4	1.5	A	161	241

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1231	308	174	2611	0.471	1227	971	0.0	0.9	2.594	A
B - Grundisburgh Rd West	145	36	1002	982	0.147	144	320	0.0	0.2	4.293	A
C - A12 South	1005	251	320	2109	0.477	1002	1079	0.0	0.9	3.241	A
D - B1079 East	132	33	1268	981	0.134	131	134	0.0	0.2	4.234	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1469	367	209	2586	0.568	1468	1162	0.9	1.3	3.216	A
B - Grundisburgh Rd West	173	43	1199	868	0.199	172	383	0.2	0.2	5.169	A
C - A12 South	1201	300	383	2064	0.582	1199	1291	0.9	1.4	4.148	A
D - B1079 East	158	39	1517	834	0.189	157	160	0.2	0.2	5.320	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1800	450	255	2552	0.705	1795	1421	1.3	2.4	4.734	A
B - Grundisburgh Rd West	211	53	1466	715	0.296	211	468	0.2	0.4	7.126	A
C - A12 South	1470	368	468	2004	0.734	1465	1579	1.4	2.7	6.613	A
D - B1079 East	193	48	1855	633	0.305	192	196	0.2	0.4	8.153	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1800	450	256	2551	0.705	1800	1426	2.4	2.4	4.788	A
B - Grundisburgh Rd West	211	53	1471	712	0.297	211	469	0.4	0.4	7.184	A
C - A12 South	1470	368	470	2003	0.734	1470	1583	2.7	2.7	6.748	A
D - B1079 East	193	48	1859	630	0.306	193	196	0.4	0.4	8.230	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1469	367	210	2585	0.568	1474	1169	2.4	1.3	3.252	A
B - Grundisburgh Rd West	173	43	1206	864	0.200	173	385	0.4	0.3	5.216	A
C - A12 South	1201	300	385	2063	0.582	1206	1296	2.7	1.4	4.224	A
D - B1079 East	158	39	1523	830	0.190	158	161	0.4	0.2	5.366	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1231	308	176	2610	0.471	1232	977	1.3	0.9	2.615	A
B - Grundisburgh Rd West	145	36	1008	978	0.148	145	321	0.3	0.2	4.320	A
C - A12 South	1005	251	322	2108	0.477	1007	1084	1.4	0.9	3.279	A
D - B1079 East	132	33	1273	978	0.135	132	134	0.2	0.2	4.259	A

Queue Variation Results for each time segment

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.89	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C - A12 South	0.90	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.31	0.05	0.46	3.28	5.17			N/A	N/A
B - Grundisburgh Rd West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - A12 South	1.37	0.05	0.47	3.46	5.39			N/A	N/A
D - B1079 East	0.23	0.00	0.00	0.23	0.23			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.35	0.03	0.27	2.35	2.35			N/A	N/A
B - Grundisburgh Rd West	0.41	0.03	0.25	0.46	0.48			N/A	N/A
C - A12 South	2.68	0.03	0.27	2.68	4.60			N/A	N/A
D - B1079 East	0.43	0.03	0.26	0.46	0.49			N/A	N/A

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.37	0.03	0.26	2.37	2.37			N/A	N/A
B - Grundisburgh Rd West	0.42	0.03	0.33	1.34	1.50			N/A	N/A
C - A12 South	2.72	0.03	0.27	2.72	2.72			N/A	N/A
D - B1079 East	0.44	0.03	0.33	1.37	1.55			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.33	0.15	1.18	2.09	2.74			N/A	N/A
B - Grundisburgh Rd West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - A12 South	1.41	0.09	1.09	2.76	3.71			N/A	N/A
D - B1079 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.90	0.06	0.73	1.64	2.11			N/A	N/A
B - Grundisburgh Rd West	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C - A12 South	0.92	0.05	0.48	1.95	2.91			N/A	N/A
D - B1079 East	0.16	0.00	0.00	0.16	0.16			N/A	N/A

## 2023 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	19.50	C

#### 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)	Run automatically
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1788	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	430	100.000
C - A12 South		ONE HOUR	✓	1485	100.000
D - B1079 East		ONE HOUR	✓	368	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	380	1317	75
	B - Grundisburgh Rd West	61	0	169	199
	C - A12 South	1143	93	1	248
	D - B1079 East	158	75	135	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	8	1
	B - Grundisburgh Rd West	15	0	5	1
	C - A12 South	11	5	0	3
	D - B1079 East	2	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.89	15.09	7.9	40.0	C	1641	2461
B - Grundisburgh Rd West	0.82	32.23	4.0	21.5	D	394	591
C - A12 South	0.88	16.14	7.0	35.6	C	1363	2044
D - B1079 East	0.84	41.30	4.3	23.4	E	338	506

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1346	336	462	2354	0.572	1341	1032	0.0	1.3	3.533	A
B - Grundisburgh Rd West	323	81	1173	896	0.361	321	411	0.0	0.6	6.235	A
C - A12 South	1118	279	471	2006	0.557	1113	1216	0.0	1.2	4.011	A
D - B1079 East	277	69	1412	884	0.313	275	391	0.0	0.5	5.894	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1607	402	553	2289	0.702	1603	1235	1.3	2.3	5.219	A
B - Grundisburgh Rd West	386	97	1404	763	0.506	384	491	0.6	1.0	9.461	A
C - A12 South	1335	334	563	1941	0.688	1331	1454	1.2	2.2	5.873	A
D - B1079 East	331	83	1689	717	0.461	329	468	0.5	0.8	9.254	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1968	492	669	2206	0.892	1949	1497	2.3	7.3	13.067	B
B - Grundisburgh Rd West	473	118	1703	590	0.802	463	596	1.0	3.5	26.559	D
C - A12 South	1635	409	681	1858	0.880	1618	1763	2.2	6.5	14.070	B
D - B1079 East	405	101	2050	497	0.815	394	567	0.8	3.7	31.953	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1968	492	678	2200	0.895	1966	1514	7.3	7.9	15.087	C
B - Grundisburgh Rd West	473	118	1721	579	0.816	471	602	3.5	4.0	32.233	D
C - A12 South	1635	409	690	1852	0.883	1633	1783	6.5	7.0	16.140	C
D - B1079 East	405	101	2071	485	0.835	402	574	3.7	4.3	41.304	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1607	402	569	2278	0.706	1629	1261	7.9	2.4	5.725	A
B - Grundisburgh Rd West	386	97	1432	747	0.517	398	501	4.0	1.1	10.628	B
C - A12 South	1335	334	579	1930	0.692	1354	1484	7.0	2.3	6.446	A
D - B1079 East	331	83	1718	698	0.473	344	479	4.3	0.9	10.543	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1346	336	468	2350	0.573	1350	1041	2.4	1.4	3.614	A
B - Grundisburgh Rd West	323	81	1184	891	0.363	325	414	1.1	0.6	6.395	A
C - A12 South	1118	279	476	2002	0.558	1122	1226	2.3	1.3	4.108	A
D - B1079 East	277	69	1423	878	0.316	279	395	0.9	0.5	6.028	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.32	0.55	1.23	1.73	1.89			N/A	N/A
B - Grundisburgh Rd West	0.56	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.25	0.56	1.15	1.57	1.79			N/A	N/A
D - B1079 East	0.45	0.00	0.00	0.45	0.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.31	0.04	0.40	6.27	11.50			N/A	N/A
B - Grundisburgh Rd West	1.00	0.05	0.62	2.04	2.95			N/A	N/A
C - A12 South	2.16	0.04	0.43	5.88	10.23			N/A	N/A
D - B1079 East	0.84	0.05	0.49	1.72	2.47			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.28	0.04	0.37	17.06	40.02			N/A	N/A
B - Grundisburgh Rd West	3.52	0.04	0.37	8.89	18.85			N/A	N/A
C - A12 South	6.48	0.04	0.37	15.04	35.56			N/A	N/A
D - B1079 East	3.67	0.04	0.41	9.93	19.13			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.86	0.03	0.31	7.87	35.63			N/A	N/A
B - Grundisburgh Rd West	3.99	0.03	0.34	8.05	21.49			N/A	N/A
C - A12 South	6.99	0.03	0.31	6.99	31.49			N/A	N/A
D - B1079 East	4.34	0.04	0.38	10.94	23.44			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.44	0.05	0.47	6.73	11.15			N/A	N/A
B - Grundisburgh Rd West	1.09	0.04	0.42	2.71	4.37			N/A	N/A
C - A12 South	2.29	0.05	0.47	6.28	10.39			N/A	N/A
D - B1079 East	0.92	0.04	0.39	2.21	3.71			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.35	0.03	0.33	2.86	6.95			N/A	N/A
B - Grundisburgh Rd West	0.58	0.03	0.31	1.50	2.69			N/A	N/A
C - A12 South	1.28	0.03	0.33	2.74	6.53			N/A	N/A
D - B1079 East	0.47	0.03	0.29	1.22	2.07			N/A	N/A

## 2023 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	8.10	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)	Run automatically
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1509	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	348	100.000
C - A12 South		ONE HOUR	✓	1438	100.000
D - B1079 East		ONE HOUR	✓	368	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	14	229	1162	104
	B - Grundisburgh Rd West	74	1	143	130
	C - A12 South	1198	115	3	122
	D - B1079 East	172	98	97	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	71	3	7	3
	B - Grundisburgh Rd West	5	0	4	2
	C - A12 South	7	5	0	0
	D - B1079 East	2	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.70	5.08	2.3	4.8	A	1384	2076
B - Grundisburgh Rd West	0.60	14.16	1.5	5.8	B	319	479
C - A12 South	0.80	8.95	3.9	14.3	A	1320	1980
D - B1079 East	0.57	11.85	1.3	5.0	B	337	506

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1136	284	299	2469	0.460	1132	1093	0.0	0.8	2.686	A
B - Grundisburgh Rd West	262	65	1132	938	0.279	260	332	0.0	0.4	5.299	A
C - A12 South	1083	271	385	2117	0.512	1079	1054	0.0	1.0	3.453	A
D - B1079 East	277	69	1164	1040	0.266	275	267	0.0	0.4	4.697	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1356	339	358	2427	0.559	1355	1308	0.8	1.3	3.352	A
B - Grundisburgh Rd West	313	78	1354	811	0.385	312	398	0.4	0.6	7.190	A
C - A12 South	1293	323	461	2061	0.627	1290	1261	1.0	1.7	4.656	A
D - B1079 East	330	83	1393	901	0.367	330	320	0.4	0.6	6.295	A

15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1661	415	436	2372	0.700	1657	1596	1.3	2.3	5.008	A
B - Grundisburgh Rd West	383	96	1653	641	0.597	380	486	0.6	1.4	13.593	B
C - A12 South	1584	396	563	1986	0.797	1575	1542	1.7	3.8	8.587	A
D - B1079 East	405	101	1703	711	0.569	402	390	0.6	1.3	11.535	B

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1661	415	439	2369	0.701	1661	1605	2.3	2.3	5.079	A
B - Grundisburgh Rd West	383	96	1661	636	0.602	383	488	1.4	1.5	14.161	B
C - A12 South	1584	396	566	1984	0.798	1583	1547	3.8	3.9	8.953	A
D - B1079 East	405	101	1708	708	0.572	405	392	1.3	1.3	11.851	B

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1356	339	362	2424	0.559	1360	1320	2.3	1.3	3.396	A
B - Grundisburgh Rd West	313	78	1366	805	0.388	316	400	1.5	0.6	7.414	A
C - A12 South	1293	323	465	2058	0.628	1302	1269	3.9	1.7	4.809	A
D - B1079 East	330	83	1400	896	0.369	333	323	1.3	0.6	6.425	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1136	284	302	2467	0.460	1137	1100	1.3	0.9	2.709	A
B - Grundisburgh Rd West	262	65	1139	934	0.280	263	334	0.6	0.4	5.371	A
C - A12 South	1083	271	388	2115	0.512	1085	1060	1.7	1.1	3.507	A
D - B1079 East	277	69	1170	1037	0.267	278	269	0.6	0.4	4.747	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A12 South	1.04	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.36	0.00	0.00	0.36	0.36			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.26	0.05	0.47	3.06	4.79			N/A	N/A
B - Grundisburgh Rd West	0.62	0.07	0.71	1.35	1.43			N/A	N/A
C - A12 South	1.66	0.04	0.44	4.41	7.33			N/A	N/A
D - B1079 East	0.57	0.06	0.67	1.33	1.42			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.30	0.03	0.27	2.30	2.30			N/A	N/A
B - Grundisburgh Rd West	1.43	0.03	0.27	1.43	2.86			N/A	N/A
C - A12 South	3.76	0.03	0.29	3.76	14.30			N/A	N/A
D - B1079 East	1.28	0.03	0.27	1.28	1.28			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.32	0.03	0.26	2.32	2.32			N/A	N/A
B - Grundisburgh Rd West	1.48	0.03	0.29	1.48	5.82			N/A	N/A
C - A12 South	3.85	0.03	0.27	3.85	4.57			N/A	N/A
D - B1079 East	1.31	0.03	0.29	1.31	5.00			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.28	0.15	1.15	1.98	2.64			N/A	N/A
B - Grundisburgh Rd West	0.64	0.06	0.64	1.38	1.47			N/A	N/A
C - A12 South	1.71	0.06	0.89	4.11	5.98			N/A	N/A
D - B1079 East	0.59	0.06	0.64	1.33	1.42			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.86	0.06	0.69	1.57	1.98			N/A	N/A
B - Grundisburgh Rd West	0.39	0.03	0.35	1.18	1.37			N/A	N/A
C - A12 South	1.06	0.04	0.39	2.66	4.55			N/A	N/A
D - B1079 East	0.37	0.03	0.33	1.09	1.30			N/A	N/A



## 2023 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	5.65	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)	Run automatically
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1466	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	284	100.000
C - A12 South		ONE HOUR	✓	1443	100.000
D - B1079 East		ONE HOUR	✓	289	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	201	1179	81
	B - Grundisburgh Rd West	66	0	94	124
	C - A12 South	1267	119	0	57
	D - B1079 East	122	96	71	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	3	2
	B - Grundisburgh Rd West	0	0	1	0
	C - A12 South	4	2	0	5
	D - B1079 East	0	1	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.63	3.77	1.7	3.0	A	1345	2017
B - Grundisburgh Rd West	0.43	8.71	0.7	3.6	A	260	391
C - A12 South	0.75	6.63	2.9	5.9	A	1324	1986
D - B1079 East	0.40	7.40	0.6	3.1	A	265	397

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1103	276	206	2639	0.418	1101	1095	0.0	0.7	2.336	A
B - Grundisburgh Rd West	214	53	1089	1016	0.210	213	312	0.0	0.3	4.477	A
C - A12 South	1087	272	318	2240	0.485	1083	1009	0.0	0.9	3.100	A
D - B1079 East	217	54	1110	1111	0.196	216	196	0.0	0.2	4.021	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1318	329	247	2610	0.505	1316	1310	0.7	1.0	2.781	A
B - Grundisburgh Rd West	255	64	1303	894	0.285	255	373	0.3	0.4	5.627	A
C - A12 South	1297	324	380	2194	0.591	1295	1207	0.9	1.4	3.996	A
D - B1079 East	260	65	1328	982	0.264	259	235	0.2	0.4	4.978	A

## 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1614	403	302	2569	0.628	1611	1602	1.0	1.7	3.745	A
B - Grundisburgh Rd West	312	78	1592	729	0.429	311	457	0.4	0.7	8.590	A
C - A12 South	1589	397	465	2132	0.745	1583	1477	1.4	2.8	6.489	A
D - B1079 East	318	79	1625	806	0.394	317	288	0.4	0.6	7.349	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1614	403	303	2568	0.628	1614	1607	1.7	1.7	3.769	A
B - Grundisburgh Rd West	312	78	1598	726	0.431	312	458	0.7	0.7	8.710	A
C - A12 South	1589	397	466	2132	0.745	1589	1479	2.8	2.9	6.630	A
D - B1079 East	318	79	1628	804	0.395	318	288	0.6	0.6	7.402	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1318	329	248	2608	0.505	1320	1318	1.7	1.0	2.802	A
B - Grundisburgh Rd West	255	64	1310	889	0.287	256	375	0.7	0.4	5.699	A
C - A12 South	1297	324	382	2193	0.592	1303	1211	2.9	1.5	4.071	A
D - B1079 East	260	65	1332	979	0.265	261	237	0.6	0.4	5.017	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1103	276	208	2638	0.418	1105	1101	1.0	0.7	2.350	A
B - Grundisburgh Rd West	214	53	1095	1012	0.211	214	314	0.4	0.3	4.513	A
C - A12 South	1087	272	320	2239	0.485	1089	1013	1.5	0.9	3.134	A
D - B1079 East	217	54	1115	1108	0.196	218	198	0.4	0.2	4.045	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.72	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - A12 South	0.94	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.01	0.05	0.62	2.08	2.99			N/A	N/A
B - Grundisburgh Rd West	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - A12 South	1.43	0.05	0.45	3.69	5.87			N/A	N/A
D - B1079 East	0.36	0.00	0.00	0.36	0.36			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.67	0.03	0.26	1.67	1.67			N/A	N/A
B - Grundisburgh Rd West	0.74	0.03	0.26	0.74	0.74			N/A	N/A
C - A12 South	2.85	0.03	0.28	2.85	5.18			N/A	N/A
D - B1079 East	0.64	0.03	0.26	0.64	0.64			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.68	0.03	0.26	1.68	1.68			N/A	N/A
B - Grundisburgh Rd West	0.75	0.03	0.30	1.47	3.56			N/A	N/A
C - A12 South	2.89	0.03	0.27	2.89	2.89			N/A	N/A
D - B1079 East	0.65	0.03	0.30	1.03	3.08			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.51	1.01	1.03	1.51			N/A	N/A
B - Grundisburgh Rd West	0.41	0.00	0.00	0.41	0.41			N/A	N/A
C - A12 South	1.46	0.09	1.10	2.91	3.93			N/A	N/A
D - B1079 East	0.36	0.00	0.00	0.36	0.36			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.72	0.09	0.82	1.39	1.46			N/A	N/A
B - Grundisburgh Rd West	0.27	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.95	0.05	0.47	2.06	3.13			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

## 2023 Early Years, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.33	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)	Run automatically
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	801	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	73	100.000
C - A12 South		ONE HOUR	✓	684	100.000
D - B1079 East		ONE HOUR	✓	75	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	68	718	11
	B - Grundisburgh Rd West	23	0	38	12
	C - A12 South	633	36	2	14
	D - B1079 East	26	17	33	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	6	0
	B - Grundisburgh Rd West	0	0	10	0
	C - A12 South	12	3	0	0
	D - B1079 East	8	0	15	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.33	2.01	0.5	2.1	A	735	1102
B - Grundisburgh Rd West	0.07	3.46	0.1	0.5	A	67	101
C - A12 South	0.34	2.46	0.5	2.3	A	627	941
D - B1079 East	0.07	3.48	0.1	0.5	A	69	104

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	603	151	49	2687	0.224	602	516	0.0	0.3	1.726	A
B - Grundisburgh Rd West	55	14	510	1260	0.044	55	90	0.0	0.0	2.988	A
C - A12 South	515	129	87	2246	0.229	514	594	0.0	0.3	2.077	A
D - B1079 East	57	14	624	1278	0.044	56	27	0.0	0.0	2.946	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	720	180	59	2680	0.269	720	617	0.3	0.4	1.835	A
B - Grundisburgh Rd West	66	16	610	1201	0.055	66	108	0.0	0.1	3.170	A
C - A12 South	615	154	104	2235	0.275	614	710	0.3	0.4	2.221	A
D - B1079 East	68	17	746	1210	0.056	68	32	0.0	0.1	3.151	A

## 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	882	220	72	2670	0.330	881	756	0.4	0.5	2.012	A
B - Grundisburgh Rd West	81	20	747	1121	0.072	80	132	0.1	0.1	3.458	A
C - A12 South	753	188	127	2219	0.339	752	870	0.4	0.5	2.455	A
D - B1079 East	83	21	914	1116	0.074	83	40	0.1	0.1	3.484	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	882	220	72	2670	0.330	882	756	0.5	0.5	2.012	A
B - Grundisburgh Rd West	81	20	748	1121	0.072	81	132	0.1	0.1	3.459	A
C - A12 South	753	188	127	2219	0.339	753	870	0.5	0.5	2.455	A
D - B1079 East	83	21	914	1115	0.074	83	40	0.1	0.1	3.485	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	720	180	59	2680	0.269	720	618	0.5	0.4	1.839	A
B - Grundisburgh Rd West	66	16	611	1201	0.055	66	108	0.1	0.1	3.174	A
C - A12 South	615	154	104	2235	0.275	615	711	0.5	0.4	2.225	A
D - B1079 East	68	17	747	1209	0.056	68	33	0.1	0.1	3.153	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	603	151	49	2687	0.224	603	517	0.4	0.3	1.729	A
B - Grundisburgh Rd West	55	14	512	1259	0.044	55	90	0.1	0.0	2.992	A
C - A12 South	515	129	87	2246	0.229	515	595	0.4	0.3	2.081	A
D - B1079 East	57	14	626	1277	0.044	57	27	0.1	0.0	2.951	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B - Grundisburgh Rd West	0.06	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.38	0.00	0.00	0.38	0.38			N/A	N/A
D - B1079 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.49	0.03	0.25	0.49	0.49			N/A	N/A
B - Grundisburgh Rd West	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.51	0.03	0.25	0.51	0.51			N/A	N/A
D - B1079 East	0.08	0.03	0.26	0.47	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.49	0.03	0.31	1.44	2.07			N/A	N/A
B - Grundisburgh Rd West	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - A12 South	0.51	0.03	0.31	1.42	2.33			N/A	N/A
D - B1079 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B - Grundisburgh Rd West	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C - A12 South	0.38	0.00	0.00	0.38	0.38			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.30	0.00	0.00	0.30	0.30			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 2023 Early Years, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	9.34	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)	Run automatically
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1656	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	213	100.000
C - A12 South		ONE HOUR	✓	1530	100.000
D - B1079 East		ONE HOUR	✓	181	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	291	1313	45
	B - Grundisburgh Rd West	51	0	102	61
	C - A12 South	1371	83	2	74
	D - B1079 East	89	55	38	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	4	5	0
	B - Grundisburgh Rd West	4	0	6	3
	C - A12 South	13	4	0	0
	D - B1079 East	1	0	9	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.72	4.99	2.5	5.5	A	1519	2279
B - Grundisburgh Rd West	0.42	10.99	0.7	3.4	B	195	293
C - A12 South	0.87	13.61	6.1	31.5	B	1404	2107
D - B1079 East	0.33	8.72	0.5	1.8	A	166	249

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1246	312	179	2605	0.478	1243	1137	0.0	0.9	2.636	A
B - Grundisburgh Rd West	160	40	1156	882	0.182	159	321	0.0	0.2	4.978	A
C - A12 South	1152	288	331	2052	0.562	1147	1092	0.0	1.3	3.957	A
D - B1079 East	136	34	1287	969	0.141	136	134	0.0	0.2	4.320	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1488	372	214	2579	0.577	1487	1361	0.9	1.4	3.288	A
B - Grundisburgh Rd West	192	48	1384	747	0.256	191	384	0.2	0.3	6.464	A
C - A12 South	1376	344	396	2007	0.685	1372	1307	1.3	2.1	5.639	A
D - B1079 East	163	41	1540	819	0.199	163	161	0.2	0.2	5.480	A

## 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1823	456	261	2545	0.716	1818	1656	1.4	2.5	4.924	A
B - Grundisburgh Rd West	235	59	1684	570	0.412	233	470	0.3	0.7	10.651	B
C - A12 South	1685	421	484	1947	0.866	1670	1598	2.1	5.8	12.409	B
D - B1079 East	200	50	1883	615	0.324	199	196	0.2	0.5	8.618	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1823	456	263	2544	0.717	1823	1669	2.5	2.5	4.991	A
B - Grundisburgh Rd West	235	59	1698	562	0.417	234	471	0.7	0.7	10.991	B
C - A12 South	1685	421	485	1946	0.866	1684	1602	5.8	6.1	13.607	B
D - B1079 East	200	50	1888	612	0.326	199	197	0.5	0.5	8.716	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1488	372	216	2578	0.577	1493	1379	2.5	1.4	3.334	A
B - Grundisburgh Rd West	192	48	1402	736	0.260	193	387	0.7	0.4	6.639	A
C - A12 South	1376	344	398	2006	0.686	1391	1313	6.1	2.2	6.005	A
D - B1079 East	163	41	1547	815	0.200	164	162	0.5	0.3	5.537	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1246	312	180	2604	0.479	1248	1146	1.4	0.9	2.658	A
B - Grundisburgh Rd West	160	40	1165	876	0.183	161	323	0.4	0.2	5.035	A
C - A12 South	1152	288	332	2051	0.562	1156	1098	2.2	1.3	4.039	A
D - B1079 East	136	34	1293	965	0.141	137	135	0.3	0.2	4.345	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.91	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C - A12 South	1.27	0.56	1.15	1.57	1.79			N/A	N/A
D - B1079 East	0.16	0.00	0.00	0.16	0.16			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.35	0.04	0.45	3.46	5.53			N/A	N/A
B - Grundisburgh Rd West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - A12 South	2.14	0.04	0.43	5.82	10.07			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.48	0.03	0.27	2.48	2.48			N/A	N/A
B - Grundisburgh Rd West	0.69	0.03	0.26	0.69	0.69			N/A	N/A
C - A12 South	5.85	0.03	0.34	11.49	31.51			N/A	N/A
D - B1079 East	0.47	0.03	0.26	0.47	0.49			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.50	0.03	0.26	2.50	2.50			N/A	N/A
B - Grundisburgh Rd West	0.71	0.03	0.31	1.32	3.41			N/A	N/A
C - A12 South	6.13	0.03	0.29	6.13	22.54			N/A	N/A
D - B1079 East	0.48	0.03	0.33	1.45	1.82			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.38	0.13	1.19	2.36	2.93			N/A	N/A
B - Grundisburgh Rd West	0.35	0.00	0.00	0.35	0.35			N/A	N/A
C - A12 South	2.23	0.05	0.48	6.05	9.85			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.06	0.70	1.76	2.43			N/A	N/A
B - Grundisburgh Rd West	0.23	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	1.30	0.03	0.34	2.99	6.59			N/A	N/A
D - B1079 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A

## 2023 Early Years, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	26.04	D

#### 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)	Run automatically
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1775	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	434	100.000
C - A12 South		ONE HOUR	✓	1515	100.000
D - B1079 East		ONE HOUR	✓	370	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	381	1303	75
	B - Grundisburgh Rd West	64	0	170	199
	C - A12 South	1183	87	1	244
	D - B1079 East	160	75	135	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	10	1
	B - Grundisburgh Rd West	15	0	5	1
	C - A12 South	16	6	0	3
	D - B1079 East	2	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.89	14.88	7.7	39.0	B	1629	2443
B - Grundisburgh Rd West	0.91	58.02	7.2	36.0	F	398	597
C - A12 South	0.93	26.53	11.5	63.3	D	1390	2085
D - B1079 East	0.84	42.20	4.5	24.0	E	339	509

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1336	334	460	2338	0.572	1331	1066	0.0	1.3	3.557	A
B - Grundisburgh Rd West	326	82	1201	857	0.381	324	407	0.0	0.6	6.720	A
C - A12 South	1141	285	473	1936	0.589	1135	1206	0.0	1.4	4.465	A
D - B1079 East	278	70	1403	884	0.315	277	388	0.0	0.5	5.913	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1596	399	550	2274	0.702	1592	1274	1.3	2.3	5.247	A
B - Grundisburgh Rd West	390	97	1437	717	0.544	388	487	0.6	1.2	10.870	B
C - A12 South	1362	340	566	1873	0.727	1357	1442	1.4	2.6	6.921	A
D - B1079 East	332	83	1678	716	0.465	331	464	0.5	0.9	9.314	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1954	489	657	2197	0.889	1535	1536	2.3	7.1	12.869	B
B - Grundisburgh Rd West	477	119	1733	539	0.885	460	590	1.2	5.5	39.309	E
C - A12 South	1668	417	684	1793	0.931	1639	1747	2.6	10.0	20.361	C
D - B1079 East	407	102	2035	497	0.819	396	557	0.9	3.7	32.407	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1954	489	670	2188	0.893	1952	1559	7.1	7.7	14.880	B
B - Grundisburgh Rd West	477	119	1759	524	0.911	471	596	5.5	7.2	58.019	F
C - A12 South	1668	417	693	1786	0.934	1662	1766	10.0	11.5	26.531	D
D - B1079 East	407	102	2055	485	0.840	404	566	3.7	4.5	42.198	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1596	399	578	2254	0.708	1616	1316	7.7	2.5	5.827	A
B - Grundisburgh Rd West	390	97	1481	690	0.565	413	497	7.2	1.3	14.041	B
C - A12 South	1362	340	582	1862	0.731	1397	1476	11.5	2.8	8.289	A
D - B1079 East	332	83	1711	695	0.478	347	483	4.5	0.9	10.725	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1336	334	466	2333	0.573	1341	1077	2.5	1.4	3.642	A
B - Grundisburgh Rd West	326	82	1214	850	0.384	329	410	1.3	0.6	6.946	A
C - A12 South	1141	285	478	1933	0.590	1146	1217	2.8	1.5	4.608	A
D - B1079 East	278	70	1414	877	0.318	280	393	0.9	0.5	6.054	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.32	0.56	1.22	1.72	1.89			N/A	N/A
B - Grundisburgh Rd West	0.61	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.42	0.53	1.31	1.87	2.15			N/A	N/A
D - B1079 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.31	0.04	0.41	6.27	11.43			N/A	N/A
B - Grundisburgh Rd West	1.16	0.05	0.49	2.75	4.13			N/A	N/A
C - A12 South	2.60	0.04	0.44	7.16	12.50			N/A	N/A
D - B1079 East	0.85	0.05	0.49	1.75	2.54			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.10	0.04	0.37	16.27	39.04			N/A	N/A
B - Grundisburgh Rd West	5.48	0.06	1.10	15.70	25.31			N/A	N/A
C - A12 South	9.98	0.06	1.02	29.09	50.10			N/A	N/A
D - B1079 East	3.75	0.04	0.41	10.22	19.40			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.70	0.03	0.31	7.70	34.30			N/A	N/A
B - Grundisburgh Rd West	7.19	0.05	0.70	20.80	36.04			N/A	N/A
C - A12 South	11.53	0.04	0.41	29.28	63.35			N/A	N/A
D - B1079 East	4.46	0.04	0.38	11.40	24.05			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.47	0.05	0.48	6.80	11.13			N/A	N/A
B - Grundisburgh Rd West	1.34	0.04	0.38	3.47	6.24			N/A	N/A
C - A12 South	2.81	0.04	0.43	7.76	13.90			N/A	N/A
D - B1079 East	0.94	0.04	0.39	2.28	3.80			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.35	0.03	0.33	2.89	6.94			N/A	N/A
B - Grundisburgh Rd West	0.63	0.03	0.29	1.07	2.70			N/A	N/A
C - A12 South	1.46	0.03	0.31	2.27	7.32			N/A	N/A
D - B1079 East	0.47	0.03	0.29	1.21	2.10			N/A	N/A



## 2023 Early Years, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	8.77	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)	Run automatically
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1540	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	354	100.000
C - A12 South		ONE HOUR	✓	1416	100.000
D - B1079 East		ONE HOUR	✓	367	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	14	231	1191	104
	B - Grundisburgh Rd West	78	1	143	132
	C - A12 South	1192	108	3	113
	D - B1079 East	172	99	95	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	71	3	10	3
	B - Grundisburgh Rd West	5	0	4	2
	C - A12 South	10	5	0	0
	D - B1079 East	2	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.73	5.66	2.6	5.6	A	1413	2119
B - Grundisburgh Rd West	0.62	15.17	1.6	6.4	C	325	487
C - A12 South	0.80	9.48	4.0	15.9	A	1300	1949
D - B1079 East	0.60	13.59	1.5	5.9	B	336	505

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1159	290	294	2427	0.478	1155	1091	0.0	0.9	2.822	A
B - Grundisburgh Rd West	266	67	1120	931	0.286	265	329	0.0	0.4	5.387	A
C - A12 South	1066	267	387	2068	0.516	1062	1074	0.0	1.1	3.564	A
D - B1079 East	276	69	1187	1013	0.272	275	262	0.0	0.4	4.864	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1384	346	352	2387	0.580	1382	1306	0.9	1.4	3.577	A
B - Grundisburgh Rd West	318	79	1340	803	0.396	317	394	0.4	0.6	7.390	A
C - A12 South	1273	318	464	2013	0.632	1271	1285	1.1	1.7	4.831	A
D - B1079 East	330	82	1420	868	0.380	329	313	0.4	0.6	6.664	A

## 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1695	424	428	2333	0.726	1690	1593	1.4	2.6	5.556	A
B - Grundisburgh Rd West	389	97	1635	631	0.617	386	481	0.6	1.5	14.451	B
C - A12 South	1559	390	566	1940	0.804	1551	1571	1.7	3.9	9.046	A
D - B1079 East	404	101	1736	672	0.601	400	382	0.6	1.5	13.108	B

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1695	424	432	2331	0.727	1695	1602	2.6	2.6	5.656	A
B - Grundisburgh Rd West	389	97	1645	626	0.622	389	483	1.5	1.6	15.169	C
C - A12 South	1559	390	569	1938	0.805	1559	1577	3.9	4.0	9.477	A
D - B1079 East	404	101	1742	668	0.604	403	384	1.5	1.5	13.593	B

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1384	346	356	2384	0.581	1389	1319	2.6	1.4	3.638	A
B - Grundisburgh Rd West	318	79	1353	796	0.400	322	397	1.6	0.7	7.654	A
C - A12 South	1273	318	468	2010	0.633	1282	1294	4.0	1.8	5.007	A
D - B1079 East	330	82	1429	863	0.382	333	316	1.5	0.6	6.839	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1159	290	296	2426	0.478	1161	1099	1.4	0.9	2.850	A
B - Grundisburgh Rd West	266	67	1128	927	0.287	267	331	0.7	0.4	5.468	A
C - A12 South	1066	267	390	2066	0.516	1069	1080	1.8	1.1	3.622	A
D - B1079 East	276	69	1194	1009	0.274	277	264	0.6	0.4	4.925	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.91	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - A12 South	1.06	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.37	0.00	0.00	0.37	0.37			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.37	0.05	0.45	3.50	5.57			N/A	N/A
B - Grundisburgh Rd West	0.65	0.07	0.72	1.36	1.44			N/A	N/A
C - A12 South	1.70	0.04	0.44	4.52	7.51			N/A	N/A
D - B1079 East	0.60	0.06	0.68	1.34	1.43			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.60	0.03	0.27	2.60	2.60			N/A	N/A
B - Grundisburgh Rd West	1.55	0.03	0.28	1.55	4.09			N/A	N/A
C - A12 South	3.90	0.03	0.30	3.90	15.91			N/A	N/A
D - B1079 East	1.45	0.03	0.27	1.45	2.77			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.63	0.03	0.26	2.63	2.63			N/A	N/A
B - Grundisburgh Rd West	1.60	0.03	0.29	1.60	6.42			N/A	N/A
C - A12 South	4.01	0.03	0.27	4.01	5.74			N/A	N/A
D - B1079 East	1.49	0.03	0.29	1.49	5.88			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.40	0.11	1.16	2.57	3.30			N/A	N/A
B - Grundisburgh Rd West	0.67	0.06	0.63	1.21	1.21			N/A	N/A
C - A12 South	1.75	0.06	0.84	4.32	6.37			N/A	N/A
D - B1079 East	0.63	0.06	0.62	1.37	1.46			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.05	0.58	1.85	2.68			N/A	N/A
B - Grundisburgh Rd West	0.41	0.04	0.35	1.23	1.42			N/A	N/A
C - A12 South	1.08	0.04	0.38	2.72	4.75			N/A	N/A
D - B1079 East	0.38	0.03	0.34	1.16	1.36			N/A	N/A

## 2023 Early Years, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	6.02	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)	Run automatically
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1561	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	264	100.000
C - A12 South		ONE HOUR	✓	1438	100.000
D - B1079 East		ONE HOUR	✓	294	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	212	1253	91
	B - Grundisburgh Rd West	71	0	67	126
	C - A12 South	1271	114	0	53
	D - B1079 East	123	102	69	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	6	2
	B - Grundisburgh Rd West	0	0	2	0
	C - A12 South	4	2	0	5
	D - B1079 East	0	1	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.68	4.39	2.1	4.3	A	1432	2148
B - Grundisburgh Rd West	0.40	8.38	0.7	3.2	A	242	363
C - A12 South	0.75	6.89	3.0	6.1	A	1320	1980
D - B1079 East	0.43	8.55	0.8	3.6	A	270	404

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1175	294	184	2601	0.452	1172	1103	0.0	0.8	2.514	A
B - Grundisburgh Rd West	199	50	1089	1012	0.196	198	321	0.0	0.2	4.416	A
C - A12 South	1083	271	331	2218	0.488	1079	1042	0.0	0.9	3.151	A
D - B1079 East	221	55	1154	1070	0.207	220	202	0.0	0.3	4.229	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1403	351	221	2575	0.545	1402	1319	0.8	1.2	3.064	A
B - Grundisburgh Rd West	237	59	1303	889	0.267	237	384	0.2	0.4	5.514	A
C - A12 South	1293	323	396	2171	0.596	1291	1247	0.9	1.5	4.084	A
D - B1079 East	264	66	1380	933	0.283	264	242	0.3	0.4	5.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1718	430	270	2540	0.677	1715	1612	1.2	2.1	4.347	A
B - Grundisburgh Rd West	290	73	1593	723	0.401	289	470	0.4	0.7	8.271	A
C - A12 South	1584	396	485	2106	0.752	1578	1526	1.5	2.9	6.732	A
D - B1079 East	323	81	1688	747	0.433	322	296	0.4	0.8	8.449	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1718	430	271	2539	0.677	1718	1618	2.1	2.1	4.387	A
B - Grundisburgh Rd West	290	73	1599	720	0.403	290	471	0.7	0.7	8.380	A
C - A12 South	1584	396	486	2105	0.752	1583	1529	2.9	3.0	6.889	A
D - B1079 East	323	81	1692	744	0.434	323	297	0.8	0.8	8.546	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1403	351	222	2574	0.545	1407	1328	2.1	1.2	3.092	A
B - Grundisburgh Rd West	237	59	1312	884	0.268	238	386	0.7	0.4	5.582	A
C - A12 South	1293	323	399	2169	0.596	1299	1252	3.0	1.5	4.167	A
D - B1079 East	264	66	1385	930	0.284	265	244	0.6	0.4	5.429	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1175	294	186	2600	0.452	1176	1109	1.2	0.8	2.530	A
B - Grundisburgh Rd West	199	50	1095	1008	0.197	199	323	0.4	0.2	4.453	A
C - A12 South	1083	271	333	2216	0.489	1085	1047	1.5	1.0	3.189	A
D - B1079 East	221	55	1158	1067	0.207	222	204	0.4	0.3	4.259	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.82	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A12 South	0.95	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.26	0.00	0.00	0.26	0.26			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.19	0.05	0.48	2.84	4.33			N/A	N/A
B - Grundisburgh Rd West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - A12 South	1.46	0.05	0.45	3.76	6.01			N/A	N/A
D - B1079 East	0.39	0.00	0.00	0.39	0.39			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.06	0.03	0.26	2.06	2.06			N/A	N/A
B - Grundisburgh Rd West	0.66	0.03	0.26	0.66	0.66			N/A	N/A
C - A12 South	2.94	0.03	0.28	2.94	6.10			N/A	N/A
D - B1079 East	0.75	0.03	0.26	0.75	0.75			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.08	0.03	0.26	2.08	2.08			N/A	N/A
B - Grundisburgh Rd West	0.67	0.03	0.30	1.06	3.21			N/A	N/A
C - A12 South	2.99	0.03	0.27	2.99	2.99			N/A	N/A
D - B1079 East	0.76	0.03	0.30	1.49	3.63			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.21	0.22	1.13	1.77	1.98			N/A	N/A
B - Grundisburgh Rd West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C - A12 South	1.49	0.08	1.08	3.03	4.17			N/A	N/A
D - B1079 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.83	0.07	0.79	1.27	1.72			N/A	N/A
B - Grundisburgh Rd West	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C - A12 South	0.96	0.05	0.46	2.17	3.34			N/A	N/A
D - B1079 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

## 2028 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.24	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)	Run automatically
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	806	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	70	100.000
C - A12 South		ONE HOUR	✓	606	100.000
D - B1079 East		ONE HOUR	✓	77	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
	A - A12 North	5	70	720	12
	B - Grundisburgh Rd West	20	0	37	13
	C - A12 South	545	41	2	19
	D - B1079 East	24	18	36	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
	A - A12 North	0	1	6	0
	B - Grundisburgh Rd West	0	0	11	0
	C - A12 South	9	3	0	1
	D - B1079 East	8	0	14	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.33	2.02	0.5	2.1	A	739	1109
B - Grundisburgh Rd West	0.07	3.27	0.1	0.5	A	64	97
C - A12 South	0.29	2.25	0.4	1.5	A	556	834
D - B1079 East	0.08	3.50	0.1	0.5	A	71	106

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	607	152	53	2683	0.226	606	446	0.0	0.3	1.732	A
B - Grundisburgh Rd West	53	13	446	1298	0.041	53	96	0.0	0.0	2.890	A
C - A12 South	456	114	87	2293	0.199	455	597	0.0	0.2	1.958	A
D - B1079 East	58	15	626	1276	0.046	58	32	0.0	0.0	2.955	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	724	181	64	2676	0.271	724	534	0.3	0.4	1.844	A
B - Grundisburgh Rd West	63	16	534	1248	0.051	63	115	0.0	0.1	3.037	A
C - A12 South	545	136	104	2281	0.239	544	714	0.2	0.3	2.073	A
D - B1079 East	69	17	749	1207	0.058	69	39	0.0	0.1	3.163	A

06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	887	222	78	2665	0.333	887	653	0.4	0.5	2.024	A
B - Grundisburgh Rd West	77	19	654	1180	0.066	77	141	0.1	0.1	3.265	A
C - A12 South	667	167	128	2264	0.295	667	874	0.3	0.4	2.253	A
D - B1079 East	85	21	917	1113	0.076	85	47	0.1	0.1	3.501	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	887	222	78	2665	0.333	887	654	0.5	0.5	2.024	A
B - Grundisburgh Rd West	77	19	654	1179	0.066	77	141	0.1	0.1	3.265	A
C - A12 South	667	167	128	2264	0.295	667	875	0.4	0.4	2.253	A
D - B1079 East	85	21	918	1113	0.076	85	48	0.1	0.1	3.502	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	724	181	64	2676	0.271	725	534	0.5	0.4	1.848	A
B - Grundisburgh Rd West	63	16	535	1248	0.051	63	115	0.1	0.1	3.039	A
C - A12 South	545	136	105	2281	0.239	545	715	0.4	0.3	2.075	A
D - B1079 East	69	17	750	1207	0.058	70	39	0.1	0.1	3.165	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	607	152	53	2683	0.226	607	447	0.4	0.3	1.736	A
B - Grundisburgh Rd West	53	13	448	1297	0.041	53	96	0.1	0.0	2.892	A
C - A12 South	456	114	88	2293	0.199	456	598	0.3	0.2	1.961	A
D - B1079 East	58	15	628	1275	0.046	58	33	0.1	0.0	2.957	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.25	0.00	0.00	0.25	0.25			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B - Grundisburgh Rd West	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - B1079 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.50	0.03	0.25	0.50	0.50			N/A	N/A
B - Grundisburgh Rd West	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.42	0.03	0.25	0.45	0.48			N/A	N/A
D - B1079 East	0.08	0.03	0.26	0.47	0.49			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.50	0.03	0.31	1.45	2.15			N/A	N/A
B - Grundisburgh Rd West	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A12 South	0.42	0.03	0.33	1.33	1.47			N/A	N/A
D - B1079 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - Grundisburgh Rd West	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C - A12 South	0.25	0.00	0.00	0.25	0.25			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 2028 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	6.64	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)	Run automatically
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1662	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	199	100.000
C - A12 South		ONE HOUR	✓	1413	100.000
D - B1079 East		ONE HOUR	✓	181	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	290	1319	46
	B - Grundisburgh Rd West	40	0	98	62
	C - A12 South	1235	91	2	85
	D - B1079 East	79	58	45	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	4	5	0
	B - Grundisburgh Rd West	6	0	6	3
	C - A12 South	10	3	0	0
	D - B1079 East	1	0	9	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.72	5.06	2.5	5.6	A	1525	2287
B - Grundisburgh Rd West	0.33	7.98	0.5	1.9	A	183	274
C - A12 South	0.78	7.98	3.4	10.1	A	1297	1946
D - B1079 East	0.33	8.75	0.5	1.8	A	166	249

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1251	313	185	2604	0.480	1247	1020	0.0	0.9	2.647	A
B - Grundisburgh Rd West	150	37	1056	953	0.157	149	329	0.0	0.2	4.475	A
C - A12 South	1064	266	325	2114	0.503	1060	1099	0.0	1.0	3.404	A
D - B1079 East	136	34	1288	966	0.141	136	144	0.0	0.2	4.330	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1494	373	221	2577	0.580	1492	1221	0.9	1.4	3.311	A
B - Grundisburgh Rd West	179	45	1263	834	0.215	179	393	0.2	0.3	5.489	A
C - A12 South	1271	318	388	2069	0.614	1268	1315	1.0	1.6	4.486	A
D - B1079 East	163	41	1541	817	0.200	163	173	0.2	0.2	5.502	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1829	457	271	2541	0.720	1825	1491	1.4	2.5	4.996	A
B - Grundisburgh Rd West	219	55	1543	674	0.325	218	481	0.3	0.5	7.887	A
C - A12 South	1556	389	475	2007	0.775	1549	1608	1.6	3.3	7.741	A
D - B1079 East	200	50	1884	614	0.325	199	211	0.2	0.5	8.656	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1829	457	272	2540	0.720	1829	1497	2.5	2.5	5.062	A
B - Grundisburgh Rd West	219	55	1550	670	0.327	219	483	0.5	0.5	7.982	A
C - A12 South	1556	389	476	2006	0.776	1556	1612	3.3	3.4	7.981	A
D - B1079 East	200	50	1889	611	0.327	199	212	0.5	0.5	8.753	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1494	373	223	2576	0.580	1498	1230	2.5	1.4	3.356	A
B - Grundisburgh Rd West	179	45	1273	829	0.216	180	396	0.5	0.3	5.555	A
C - A12 South	1271	318	390	2067	0.615	1278	1321	3.4	1.6	4.600	A
D - B1079 East	163	41	1548	813	0.200	164	174	0.5	0.3	5.556	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1251	313	186	2603	0.481	1253	1026	1.4	0.9	2.669	A
B - Grundisburgh Rd West	150	37	1062	949	0.158	150	331	0.3	0.2	4.507	A
C - A12 South	1064	266	326	2113	0.504	1066	1104	1.6	1.0	3.451	A
D - B1079 East	136	34	1294	962	0.142	137	145	0.3	0.2	4.363	A

Queue Variation Results for each time segment

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - A12 South	1.01	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.16	0.00	0.00	0.16	0.16			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.37	0.04	0.45	3.51	5.62			N/A	N/A
B - Grundisburgh Rd West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A12 South	1.57	0.04	0.45	4.12	6.73			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.52	0.03	0.27	2.52	2.52			N/A	N/A
B - Grundisburgh Rd West	0.48	0.03	0.26	0.48	0.48			N/A	N/A
C - A12 South	3.32	0.03	0.28	3.32	10.14			N/A	N/A
D - B1079 East	0.48	0.03	0.26	0.48	0.49			N/A	N/A

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.55	0.03	0.26	2.55	2.55			N/A	N/A
B - Grundisburgh Rd West	0.48	0.03	0.32	1.45	1.91			N/A	N/A
C - A12 South	3.39	0.03	0.27	3.39	3.39			N/A	N/A
D - B1079 East	0.48	0.03	0.33	1.45	1.84			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.39	0.13	1.19	2.43	2.99			N/A	N/A
B - Grundisburgh Rd West	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C - A12 South	1.62	0.07	0.99	3.68	5.17			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.93	0.06	0.68	1.80	2.52			N/A	N/A
B - Grundisburgh Rd West	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - A12 South	1.02	0.04	0.42	2.51	3.99			N/A	N/A
D - B1079 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A



## 2028 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	29.18	D

#### 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)	Run automatically
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1794	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	452	100.000
C - A12 South		ONE HOUR	✓	1603	100.000
D - B1079 East		ONE HOUR	✓	374	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	381	1320	77
	B - Grundisburgh Rd West	65	0	186	200
	C - A12 South	1195	144	1	263
	D - B1079 East	159	77	138	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	9	1
	B - Grundisburgh Rd West	15	0	4	1
	C - A12 South	11	4	0	3
	D - B1079 East	2	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.91	16.94	8.8	43.7	C	1646	2469
B - Grundisburgh Rd West	0.92	57.60	7.4	37.3	F	414	622
C - A12 South	0.95	30.43	14.0	75.2	D	1471	2206
D - B1079 East	0.87	50.02	5.3	27.9	F	343	515

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1350	338	487	2336	0.578	1345	1075	0.0	1.4	3.614	A
B - Grundisburgh Rd West	340	85	1224	870	0.391	337	451	0.0	0.6	6.742	A
C - A12 South	1207	302	474	2014	0.599	1201	1233	0.0	1.5	4.395	A
D - B1079 East	281	70	1427	875	0.322	280	404	0.0	0.5	6.026	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1613	403	582	2268	0.711	1608	1285	1.4	2.4	5.423	A
B - Grundisburgh Rd West	406	101	1464	731	0.555	404	539	0.6	1.2	10.909	B
C - A12 South	1441	360	567	1949	0.740	1436	1474	1.5	2.8	6.953	A
D - B1079 East	336	84	1707	706	0.476	334	484	0.5	0.9	9.649	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1975	494	696	2187	0.903	1953	1545	2.4	8.0	14.195	B
B - Grundisburgh Rd West	497	124	1761	560	0.889	480	652	1.2	5.6	38.775	E
C - A12 South	1765	441	683	1866	0.946	1729	1783	2.8	11.7	22.095	C
D - B1079 East	412	103	2068	487	0.845	398	580	0.9	4.3	36.233	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1975	494	709	2177	0.907	1972	1570	8.0	8.8	16.945	C
B - Grundisburgh Rd West	497	124	1789	543	0.915	490	660	5.6	7.4	57.599	F
C - A12 South	1765	441	693	1859	0.949	1756	1804	11.7	14.0	30.432	D
D - B1079 East	412	103	2091	473	0.870	407	590	4.3	5.3	50.023	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1613	403	613	2246	0.718	1637	1334	8.8	2.6	6.148	A
B - Grundisburgh Rd West	406	101	1517	701	0.579	430	554	7.4	1.4	14.421	B
C - A12 South	1441	360	585	1936	0.744	1485	1514	14.0	3.0	8.739	A
D - B1079 East	336	84	1746	682	0.492	353	505	5.3	1.0	11.495	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1350	338	494	2331	0.579	1355	1086	2.6	1.4	3.705	A
B - Grundisburgh Rd West	340	85	1236	863	0.394	343	455	1.4	0.7	6.971	A
C - A12 South	1207	302	479	2011	0.600	1213	1244	3.0	1.5	4.543	A
D - B1079 East	281	70	1440	868	0.324	283	409	1.0	0.5	6.180	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.36	0.55	1.26	1.79	1.94			N/A	N/A
B - Grundisburgh Rd West	0.63	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.48	0.50	1.35	1.98	2.56			N/A	N/A
D - B1079 East	0.47	0.00	0.00	0.47	0.47			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.41	0.04	0.41	6.56	12.00			N/A	N/A
B - Grundisburgh Rd West	1.22	0.05	0.49	2.89	4.43			N/A	N/A
C - A12 South	2.76	0.04	0.43	7.65	13.50			N/A	N/A
D - B1079 East	0.89	0.05	0.48	1.89	2.82			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.99	0.04	0.40	20.37	43.69			N/A	N/A
B - Grundisburgh Rd West	5.64	0.06	1.14	16.14	25.99			N/A	N/A
C - A12 South	11.70	0.07	1.48	34.23	55.52			N/A	N/A
D - B1079 East	4.29	0.05	0.47	12.16	21.30			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	8.81	0.03	0.33	12.32	43.69			N/A	N/A
B - Grundisburgh Rd West	7.45	0.05	0.75	21.56	37.25			N/A	N/A
C - A12 South	14.02	0.05	0.49	39.58	75.18			N/A	N/A
D - B1079 East	5.32	0.04	0.43	14.73	27.91			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.60	0.05	0.47	7.22	12.06			N/A	N/A
B - Grundisburgh Rd West	1.42	0.04	0.39	3.72	6.63			N/A	N/A
C - A12 South	3.01	0.04	0.42	8.32	15.11			N/A	N/A
D - B1079 East	0.99	0.04	0.38	2.48	4.28			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.39	0.03	0.32	2.77	7.19			N/A	N/A
B - Grundisburgh Rd West	0.66	0.03	0.29	1.10	2.82			N/A	N/A
C - A12 South	1.52	0.03	0.30	2.06	7.43			N/A	N/A
D - B1079 East	0.48	0.03	0.29	1.08	2.12			N/A	N/A

## 2028 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	9.93	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)	Run automatically
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1586	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	391	100.000
C - A12 South		ONE HOUR	✓	1473	100.000
D - B1079 East		ONE HOUR	✓	397	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	14	240	1221	111
	B - Grundisburgh Rd West	93	1	152	145
	C - A12 South	1230	121	3	119
	D - B1079 East	179	106	111	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	71	3	7	3
	B - Grundisburgh Rd West	4	0	4	2
	C - A12 South	7	5	0	0
	D - B1079 East	2	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.74	5.87	2.8	5.9	A	1455	2182
B - Grundisburgh Rd West	0.70	19.04	2.2	9.5	C	359	538
C - A12 South	0.82	10.36	4.5	20.0	B	1352	2028
D - B1079 East	0.66	16.21	1.9	7.8	C	364	546

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1194	298	315	2464	0.484	1190	1136	0.0	0.9	2.818	A
B - Grundisburgh Rd West	294	74	1158	927	0.317	292	351	0.0	0.5	5.655	A
C - A12 South	1109	277	405	2107	0.526	1105	1116	0.0	1.1	3.576	A
D - B1079 East	299	75	1223	1006	0.297	297	281	0.0	0.4	5.064	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1425	356	377	2420	0.589	1423	1359	0.9	1.4	3.605	A
B - Grundisburgh Rd West	351	88	1386	797	0.441	350	420	0.5	0.8	8.026	A
C - A12 South	1324	331	484	2048	0.647	1322	1335	1.1	1.8	4.936	A
D - B1079 East	357	89	1463	860	0.415	355	337	0.4	0.7	7.120	A

## 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1746	436	458	2362	0.739	1740	1657	1.4	2.8	5.741	A
B - Grundisburgh Rd West	430	108	1690	624	0.689	425	512	0.8	2.1	17.642	C
C - A12 South	1622	406	590	1970	0.823	1612	1630	1.8	4.4	9.767	A
D - B1079 East	437	109	1788	662	0.660	432	410	0.7	1.8	15.370	C

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1746	436	462	2359	0.740	1746	1668	2.8	2.8	5.868	A
B - Grundisburgh Rd West	430	108	1701	618	0.696	430	515	2.1	2.2	19.044	C
C - A12 South	1622	406	594	1967	0.824	1621	1637	4.4	4.5	10.359	B
D - B1079 East	437	109	1795	658	0.664	436	413	1.8	1.9	16.211	C

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1425	356	383	2415	0.590	1431	1375	2.8	1.5	3.678	A
B - Grundisburgh Rd West	351	88	1401	789	0.445	357	424	2.2	0.8	8.437	A
C - A12 South	1324	331	490	2044	0.648	1335	1345	4.5	1.9	5.152	A
D - B1079 East	357	89	1473	854	0.417	361	341	1.9	0.7	7.375	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1194	298	318	2462	0.485	1196	1144	1.5	0.9	2.847	A
B - Grundisburgh Rd West	294	74	1167	922	0.319	296	353	0.8	0.5	5.755	A
C - A12 South	1109	277	408	2105	0.527	1112	1122	1.9	1.1	3.640	A
D - B1079 East	299	75	1230	1002	0.298	300	283	0.7	0.4	5.132	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.93	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.46	0.00	0.00	0.46	0.46			N/A	N/A
C - A12 South	1.10	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.42	0.00	0.00	0.42	0.42			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.42	0.04	0.44	3.68	5.94			N/A	N/A
B - Grundisburgh Rd West	0.78	0.06	0.72	1.12	1.64			N/A	N/A
C - A12 South	1.80	0.04	0.43	4.84	8.25			N/A	N/A
D - B1079 East	0.70	0.06	0.69	1.20	1.20			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.77	0.03	0.27	2.77	3.50			N/A	N/A
B - Grundisburgh Rd West	2.09	0.03	0.30	2.09	9.33			N/A	N/A
C - A12 South	4.39	0.03	0.31	4.47	20.01			N/A	N/A
D - B1079 East	1.85	0.03	0.29	1.85	6.72			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.81	0.03	0.26	2.81	2.81			N/A	N/A
B - Grundisburgh Rd West	2.20	0.03	0.29	2.20	9.49			N/A	N/A
C - A12 South	4.54	0.03	0.28	4.54	8.98			N/A	N/A
D - B1079 East	1.92	0.03	0.29	1.92	7.77			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.45	0.10	1.15	2.77	3.67			N/A	N/A
B - Grundisburgh Rd West	0.82	0.05	0.56	1.58	2.11			N/A	N/A
C - A12 South	1.87	0.06	0.74	4.77	7.22			N/A	N/A
D - B1079 East	0.73	0.05	0.60	1.12	1.67			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.95	0.05	0.51	1.96	2.90			N/A	N/A
B - Grundisburgh Rd West	0.47	0.03	0.34	1.42	1.63			N/A	N/A
C - A12 South	1.12	0.04	0.37	2.82	5.25			N/A	N/A
D - B1079 East	0.43	0.03	0.35	1.14	1.14			N/A	N/A

## 2028 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	6.21	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)	Run automatically
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1540	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	304	100.000
C - A12 South		ONE HOUR	✓	1474	100.000
D - B1079 East		ONE HOUR	✓	296	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	218	1233	84
	B - Grundisburgh Rd West	72	0	104	128
	C - A12 South	1287	126	0	61
	D - B1079 East	124	90	82	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	3	2
	B - Grundisburgh Rd West	0	0	1	0
	C - A12 South	3	2	0	5
	D - B1079 East	0	1	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.66	4.19	2.0	3.9	A	1413	2119
B - Grundisburgh Rd West	0.47	9.60	0.9	3.9	A	279	418
C - A12 South	0.76	7.20	3.2	7.7	A	1353	2029
D - B1079 East	0.43	8.46	0.8	3.6	A	271	407

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1159	290	220	2631	0.441	1156	1116	0.0	0.8	2.436	A
B - Grundisburgh Rd West	229	57	1108	1004	0.228	227	325	0.0	0.3	4.630	A
C - A12 South	1110	277	328	2234	0.497	1106	1065	0.0	1.0	3.181	A
D - B1079 East	223	56	1171	1074	0.207	222	205	0.0	0.3	4.218	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1384	346	263	2599	0.533	1383	1335	0.8	1.1	2.958	A
B - Grundisburgh Rd West	273	68	1326	880	0.310	272	389	0.3	0.4	5.918	A
C - A12 South	1325	331	392	2187	0.606	1323	1274	1.0	1.5	4.158	A
D - B1079 East	266	66	1401	938	0.283	265	245	0.3	0.4	5.345	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1695	424	321	2556	0.663	1692	1631	1.1	1.9	4.150	A
B - Grundisburgh Rd West	334	84	1620	713	0.469	333	476	0.4	0.9	9.433	A
C - A12 South	1623	406	479	2123	0.765	1617	1558	1.5	3.1	7.019	A
D - B1079 East	326	81	1714	753	0.432	324	299	0.4	0.7	8.363	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1695	424	323	2555	0.663	1695	1638	1.9	2.0	4.186	A
B - Grundisburgh Rd West	334	84	1626	709	0.472	334	478	0.9	0.9	9.605	A
C - A12 South	1623	406	481	2122	0.765	1623	1562	3.1	3.2	7.203	A
D - B1079 East	326	81	1717	751	0.434	326	301	0.7	0.8	8.460	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1384	346	265	2597	0.533	1387	1344	2.0	1.1	2.985	A
B - Grundisburgh Rd West	273	68	1335	875	0.312	275	391	0.9	0.5	6.012	A
C - A12 South	1325	331	394	2185	0.606	1332	1279	3.2	1.6	4.249	A
D - B1079 East	266	66	1406	935	0.284	267	247	0.6	0.4	5.401	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1159	290	221	2629	0.441	1161	1122	1.1	0.8	2.454	A
B - Grundisburgh Rd West	229	57	1114	1000	0.229	229	327	0.5	0.3	4.674	A
C - A12 South	1110	277	329	2233	0.497	1112	1070	1.6	1.0	3.218	A
D - B1079 East	223	56	1176	1071	0.208	223	206	0.4	0.3	4.248	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C - A12 South	0.98	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.26	0.00	0.00	0.26	0.26			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.13	0.05	0.50	2.65	3.91			N/A	N/A
B - Grundisburgh Rd West	0.45	0.00	0.00	0.45	0.45			N/A	N/A
C - A12 South	1.52	0.04	0.44	3.96	6.51			N/A	N/A
D - B1079 East	0.39	0.00	0.00	0.39	0.39			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.94	0.03	0.26	1.94	1.94			N/A	N/A
B - Grundisburgh Rd West	0.87	0.03	0.26	0.87	0.87			N/A	N/A
C - A12 South	3.14	0.03	0.28	3.14	7.75			N/A	N/A
D - B1079 East	0.75	0.03	0.26	0.75	0.75			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.96	0.03	0.26	1.96	1.96			N/A	N/A
B - Grundisburgh Rd West	0.88	0.03	0.29	1.36	3.91			N/A	N/A
C - A12 South	3.20	0.03	0.27	3.20	3.20			N/A	N/A
D - B1079 East	0.76	0.03	0.30	1.48	3.62			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.15	0.28	1.10	1.63	1.87			N/A	N/A
B - Grundisburgh Rd West	0.46	0.04	0.36	1.17	1.34			N/A	N/A
C - A12 South	1.56	0.08	1.06	3.38	4.67			N/A	N/A
D - B1079 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.08	0.80	1.49	1.52			N/A	N/A
B - Grundisburgh Rd West	0.30	0.03	0.25	0.46	0.48			N/A	N/A
C - A12 South	1.00	0.04	0.44	2.36	3.68			N/A	N/A
D - B1079 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

## 2028 Peak Construction, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.46	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)	Run automatically
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	813	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	81	100.000
C - A12 South		ONE HOUR	✓	807	100.000
D - B1079 East		ONE HOUR	✓	78	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	71	726	12
	B - Grundisburgh Rd West	31	0	37	13
	C - A12 South	747	40	2	19
	D - B1079 East	25	18	36	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	6	0
	B - Grundisburgh Rd West	0	0	11	0
	C - A12 South	10	3	0	1
	D - B1079 East	8	0	14	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.34	2.04	0.5	2.2	A	746	1119
B - Grundisburgh Rd West	0.08	3.72	0.1	0.5	A	74	112
C - A12 South	0.40	2.65	0.7	2.7	A	740	1111
D - B1079 East	0.08	3.52	0.1	0.5	A	72	108

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	612	153	53	2678	0.229	611	607	0.0	0.3	1.741	A
B - Grundisburgh Rd West	61	15	599	1218	0.050	61	96	0.0	0.1	3.111	A
C - A12 South	607	152	89	2275	0.267	606	601	0.0	0.4	2.154	A
D - B1079 East	59	15	631	1274	0.046	59	32	0.0	0.0	2.961	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	731	183	64	2670	0.274	730	726	0.3	0.4	1.855	A
B - Grundisburgh Rd West	73	18	716	1150	0.063	73	115	0.1	0.1	3.342	A
C - A12 South	725	181	106	2263	0.321	725	719	0.4	0.5	2.340	A
D - B1079 East	70	18	755	1205	0.058	70	39	0.0	0.1	3.172	A

## 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	895	224	78	2660	0.336	894	889	0.4	0.5	2.039	A
B - Grundisburgh Rd West	89	22	877	1057	0.085	89	141	0.1	0.1	3.720	A
C - A12 South	888	222	130	2246	0.395	888	881	0.5	0.7	2.648	A
D - B1079 East	86	22	925	1109	0.078	86	47	0.1	0.1	3.517	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	895	224	78	2660	0.337	895	889	0.5	0.5	2.039	A
B - Grundisburgh Rd West	89	22	878	1056	0.085	89	141	0.1	0.1	3.722	A
C - A12 South	888	222	130	2246	0.395	888	881	0.7	0.7	2.650	A
D - B1079 East	86	22	925	1109	0.078	86	48	0.1	0.1	3.518	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	731	183	64	2670	0.274	731	727	0.5	0.4	1.856	A
B - Grundisburgh Rd West	73	18	717	1149	0.064	73	115	0.1	0.1	3.345	A
C - A12 South	725	181	106	2263	0.321	726	720	0.7	0.5	2.343	A
D - B1079 East	70	18	756	1204	0.058	70	39	0.1	0.1	3.176	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	612	153	53	2678	0.229	612	609	0.4	0.3	1.742	A
B - Grundisburgh Rd West	61	15	601	1217	0.050	61	96	0.1	0.1	3.117	A
C - A12 South	607	152	89	2275	0.267	608	603	0.5	0.4	2.161	A
D - B1079 East	59	15	633	1273	0.046	59	33	0.1	0.0	2.963	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.36	0.00	0.00	0.36	0.36			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - Grundisburgh Rd West	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.47	0.00	0.00	0.47	0.47			N/A	N/A
D - B1079 East	0.06	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.51	0.03	0.25	0.51	0.51			N/A	N/A
B - Grundisburgh Rd West	0.09	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.65	0.03	0.25	0.65	0.65			N/A	N/A
D - B1079 East	0.08	0.03	0.26	0.47	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.51	0.03	0.31	1.45	2.24			N/A	N/A
B - Grundisburgh Rd West	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - A12 South	0.65	0.03	0.28	0.96	2.68			N/A	N/A
D - B1079 East	0.08	0.00	0.00	0.08	0.08			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B - Grundisburgh Rd West	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A12 South	0.47	0.00	0.00	0.47	0.47			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.37	0.00	0.00	0.37	0.37			N/A	N/A
D - B1079 East	0.05	0.00	0.00	0.05	0.05			N/A	N/A



## 2028 Peak Construction, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	9.77	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)	Run automatically
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1668	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	200	100.000
C - A12 South		ONE HOUR	✓	1552	100.000
D - B1079 East		ONE HOUR	✓	184	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	292	1322	47
	B - Grundisburgh Rd West	47	0	92	62
	C - A12 South	1379	87	2	84
	D - B1079 East	81	58	46	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	4	6	0
	B - Grundisburgh Rd West	5	0	7	3
	C - A12 South	13	4	0	0
	D - B1079 East	1	0	9	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.72	5.12	2.6	5.7	A	1530	2295
B - Grundisburgh Rd West	0.40	10.72	0.6	3.0	B	184	275
C - A12 South	0.87	14.44	6.6	34.1	B	1425	2137
D - B1079 East	0.33	8.87	0.5	1.9	A	169	254

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1255	314	180	2601	0.483	1252	1134	0.0	0.9	2.663	A
B - Grundisburgh Rd West	151	38	1164	876	0.172	150	327	0.0	0.2	4.952	A
C - A12 South	1169	292	328	2060	0.567	1164	1098	0.0	1.3	3.995	A
D - B1079 East	139	35	1287	964	0.144	138	144	0.0	0.2	4.352	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1499	375	215	2575	0.582	1497	1357	0.9	1.4	3.336	A
B - Grundisburgh Rd West	180	45	1392	742	0.242	179	392	0.2	0.3	6.397	A
C - A12 South	1396	349	392	2015	0.693	1392	1313	1.3	2.2	5.744	A
D - B1079 East	166	41	1540	815	0.203	165	172	0.2	0.3	5.540	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1836	459	262	2540	0.723	1831	1651	1.4	2.6	5.047	A
B - Grundisburgh Rd West	220	55	1694	564	0.390	219	478	0.3	0.6	10.391	B
C - A12 South	1709	427	479	1955	0.874	1693	1606	2.2	6.2	13.020	B
D - B1079 East	203	51	1883	611	0.332	202	210	0.3	0.5	8.771	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1836	459	264	2539	0.723	1836	1665	2.6	2.6	5.120	A
B - Grundisburgh Rd West	220	55	1708	556	0.396	220	480	0.6	0.6	10.723	B
C - A12 South	1709	427	481	1954	0.875	1708	1610	6.2	6.6	14.441	B
D - B1079 East	203	51	1888	608	0.333	203	212	0.5	0.5	8.873	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1499	375	217	2573	0.583	1504	1376	2.6	1.4	3.384	A
B - Grundisburgh Rd West	180	45	1413	730	0.246	181	394	0.6	0.3	6.576	A
C - A12 South	1396	349	394	2014	0.693	1413	1319	6.6	2.3	6.154	A
D - B1079 East	166	41	1547	811	0.204	167	174	0.5	0.3	5.599	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1255	314	181	2599	0.483	1257	1143	1.4	0.9	2.687	A
B - Grundisburgh Rd West	151	38	1173	871	0.173	151	329	0.3	0.2	5.006	A
C - A12 South	1169	292	329	2058	0.568	1173	1103	2.3	1.3	4.083	A
D - B1079 East	139	35	1293	961	0.144	139	145	0.3	0.2	4.382	A

Queue Variation Results for each time segment

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.93	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - A12 South	1.30	0.56	1.19	1.64	1.83			N/A	N/A
D - B1079 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.38	0.04	0.44	3.56	5.71			N/A	N/A
B - Grundisburgh Rd West	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C - A12 South	2.21	0.04	0.43	6.01	10.47			N/A	N/A
D - B1079 East	0.25	0.00	0.00	0.25	0.25			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.56	0.03	0.27	2.56	2.56			N/A	N/A
B - Grundisburgh Rd West	0.63	0.03	0.26	0.63	0.63			N/A	N/A
C - A12 South	6.24	0.04	0.35	13.39	34.09			N/A	N/A
D - B1079 East	0.49	0.03	0.26	0.49	0.49			N/A	N/A

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.59	0.03	0.26	2.59	2.59			N/A	N/A
B - Grundisburgh Rd West	0.65	0.03	0.31	1.30	3.02			N/A	N/A
C - A12 South	6.58	0.03	0.30	6.58	26.56			N/A	N/A
D - B1079 East	0.50	0.03	0.33	1.47	1.92			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.41	0.13	1.19	2.50	3.13			N/A	N/A
B - Grundisburgh Rd West	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - A12 South	2.31	0.05	0.47	6.30	10.36			N/A	N/A
D - B1079 East	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.94	0.06	0.67	1.83	2.59			N/A	N/A
B - Grundisburgh Rd West	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - A12 South	1.33	0.03	0.33	2.98	6.78			N/A	N/A
D - B1079 East	0.17	0.00	0.00	0.17	0.17			N/A	N/A

## 2028 Peak Construction, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	28.98	D

#### 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)	Run automatically
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1775	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	461	100.000
C - A12 South		ONE HOUR	✓	1527	100.000
D - B1079 East		ONE HOUR	✓	370	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	379	1304	76
	B - Grundisburgh Rd West	72	0	186	202
	C - A12 South	1186	94	1	246
	D - B1079 East	159	76	135	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	10	1
	B - Grundisburgh Rd West	13	0	4	1
	C - A12 South	15	5	0	3
	D - B1079 East	2	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.90	15.65	8.1	40.7	C	1629	2443
B - Grundisburgh Rd West	0.96	77.73	10.6	45.1	F	423	634
C - A12 South	0.93	26.55	11.6	63.9	D	1401	2102
D - B1079 East	0.85	45.82	4.8	25.9	E	339	509

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1336	334	476	2326	0.574	1331	1073	0.0	1.3	3.598	A
B - Grundisburgh Rd West	347	87	1204	861	0.403	344	411	0.0	0.7	6.930	A
C - A12 South	1150	287	472	1949	0.590	1144	1219	0.0	1.4	4.443	A
D - B1079 East	278	70	1414	878	0.317	277	392	0.0	0.5	5.972	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1596	399	569	2260	0.706	1591	1283	1.3	2.4	5.349	A
B - Grundisburgh Rd West	414	104	1440	720	0.575	411	492	0.7	1.3	11.561	B
C - A12 South	1373	343	564	1885	0.728	1368	1457	1.4	2.6	6.893	A
D - B1079 East	332	83	1691	708	0.469	331	469	0.5	0.9	9.495	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1954	489	675	2185	0.894	1934	1545	2.4	7.4	13.376	B
B - Grundisburgh Rd West	507	127	1737	543	0.934	483	596	1.3	7.4	47.809	E
C - A12 South	1681	420	681	1806	0.931	1651	1761	2.6	10.0	20.328	C
D - B1079 East	407	102	2048	490	0.831	395	561	0.9	4.0	34.230	D

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1954	489	688	2176	0.898	1951	1569	7.4	8.1	15.652	C
B - Grundisburgh Rd West	507	127	1763	528	0.961	494	603	7.4	10.6	77.733	F
C - A12 South	1681	420	691	1799	0.935	1675	1782	10.0	11.6	26.549	D
D - B1079 East	407	102	2069	477	0.854	404	571	4.0	4.8	45.820	E

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1596	399	608	2233	0.715	1618	1328	8.1	2.6	6.057	A
B - Grundisburgh Rd West	414	104	1485	694	0.597	450	503	10.6	1.5	16.908	C
C - A12 South	1373	343	581	1874	0.732	1408	1498	11.6	2.8	8.278	A
D - B1079 East	332	83	1731	684	0.486	348	494	4.8	1.0	11.196	B

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1336	334	482	2321	0.576	1341	1084	2.6	1.4	3.688	A
B - Grundisburgh Rd West	347	87	1217	854	0.406	350	415	1.5	0.7	7.193	A
C - A12 South	1150	287	477	1945	0.591	1155	1230	2.8	1.5	4.584	A
D - B1079 East	278	70	1426	870	0.320	280	397	1.0	0.5	6.125	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.34	0.55	1.24	1.75	1.91			N/A	N/A
B - Grundisburgh Rd West	0.67	0.26	0.95	1.39	1.45			N/A	N/A
C - A12 South	1.42	0.53	1.32	1.88	2.19			N/A	N/A
D - B1079 East	0.46	0.00	0.00	0.46	0.46			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.35	0.04	0.41	6.41	11.67			N/A	N/A
B - Grundisburgh Rd West	1.31	0.05	0.47	3.28	5.10			N/A	N/A
C - A12 South	2.61	0.04	0.44	7.19	12.58			N/A	N/A
D - B1079 East	0.87	0.05	0.48	1.81	2.67			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.40	0.04	0.38	17.71	40.66			N/A	N/A
B - Grundisburgh Rd West	7.38	0.10	2.35	20.10	29.52			N/A	N/A
C - A12 South	10.05	0.06	1.04	29.30	50.40			N/A	N/A
D - B1079 East	3.98	0.04	0.44	11.11	20.27			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	8.08	0.03	0.31	8.97	37.72			N/A	N/A
B - Grundisburgh Rd West	10.58	0.09	2.75	29.85	45.06			N/A	N/A
C - A12 South	11.63	0.04	0.41	29.65	63.91			N/A	N/A
D - B1079 East	4.83	0.04	0.40	12.92	25.86			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.56	0.05	0.48	7.03	11.57			N/A	N/A
B - Grundisburgh Rd West	1.54	0.04	0.37	3.91	7.60			N/A	N/A
C - A12 South	2.82	0.04	0.43	7.80	13.97			N/A	N/A
D - B1079 East	0.97	0.04	0.39	2.39	3.99			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.37	0.03	0.32	2.86	7.05			N/A	N/A
B - Grundisburgh Rd West	0.69	0.03	0.28	0.69	2.54			N/A	N/A
C - A12 South	1.46	0.03	0.31	2.27	7.34			N/A	N/A
D - B1079 East	0.48	0.03	0.29	1.15	2.11			N/A	N/A

## 2028 Peak Construction, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	10.44	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)	Run automatically
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1682	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	397	100.000
C - A12 South		ONE HOUR	✓	1397	100.000
D - B1079 East		ONE HOUR	✓	351	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	14	247	1308	113
B - Grundisburgh Rd West	96	1	152	148
C - A12 South	1173	114	3	107
D - B1079 East	180	106	64	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	71	3	9	3
B - Grundisburgh Rd West	4	0	4	2
C - A12 South	11	5	0	0
D - B1079 East	2	2	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.80	7.52	3.8	11.5	A	1543	2315
B - Grundisburgh Rd West	0.69	18.21	2.1	9.0	C	364	546
C - A12 South	0.81	9.88	4.1	16.9	A	1282	1923
D - B1079 East	0.67	18.84	2.0	8.9	C	322	483

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1266	316	308	2430	0.521	1262	1096	0.0	1.1	3.069	A
B - Grundisburgh Rd West	299	75	1107	938	0.318	297	351	0.0	0.5	5.599	A
C - A12 South	1052	263	411	2038	0.516	1048	1145	0.0	1.1	3.621	A
D - B1079 East	264	66	1294	950	0.278	262	276	0.0	0.4	5.226	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1512	378	368	2388	0.633	1509	1312	1.1	1.7	4.087	A
B - Grundisburgh Rd West	357	89	1325	810	0.440	355	420	0.5	0.8	7.896	A
C - A12 South	1256	314	491	1980	0.634	1253	1370	1.1	1.7	4.934	A
D - B1079 East	315	79	1547	793	0.398	314	330	0.4	0.7	7.504	A

15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1851	463	448	2332	0.794	1843	1599	1.7	3.7	7.254	A
B - Grundisburgh Rd West	437	109	1615	639	0.683	432	512	0.8	2.0	16.963	C
C - A12 South	1538	385	598	1904	0.808	1529	1672	1.7	4.0	9.359	A
D - B1079 East	386	97	1889	581	0.664	381	402	0.7	1.9	17.569	C

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1851	463	452	2329	0.795	1851	1610	3.7	3.8	7.522	A
B - Grundisburgh Rd West	437	109	1626	633	0.690	436	515	2.0	2.1	18.213	C
C - A12 South	1538	385	603	1901	0.809	1538	1681	4.0	4.1	9.879	A
D - B1079 East	386	97	1898	576	0.670	386	405	1.9	2.0	18.843	C

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1512	378	374	2383	0.634	1520	1327	3.8	1.8	4.208	A
B - Grundisburgh Rd West	357	89	1339	802	0.445	362	424	2.1	0.8	8.282	A
C - A12 South	1256	314	498	1976	0.636	1265	1382	4.1	1.8	5.133	A
D - B1079 East	315	79	1560	785	0.401	320	334	2.0	0.7	7.828	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1266	316	311	2428	0.521	1269	1105	1.8	1.1	3.111	A
B - Grundisburgh Rd West	299	75	1115	933	0.320	300	353	0.8	0.5	5.697	A
C - A12 South	1052	263	414	2036	0.517	1055	1153	1.8	1.1	3.682	A
D - B1079 East	264	66	1301	945	0.279	265	278	0.7	0.4	5.303	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.08	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.46	0.00	0.00	0.46	0.46			N/A	N/A
C - A12 South	1.06	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.38	0.00	0.00	0.38	0.38			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.04	0.42	4.57	7.84			N/A	N/A
B - Grundisburgh Rd West	0.77	0.07	0.73	1.09	1.62			N/A	N/A
C - A12 South	1.71	0.04	0.44	4.56	7.57			N/A	N/A
D - B1079 East	0.65	0.06	0.65	1.39	1.48			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.71	0.03	0.29	3.71	11.54			N/A	N/A
B - Grundisburgh Rd West	2.04	0.03	0.29	2.04	8.78			N/A	N/A
C - A12 South	3.99	0.03	0.30	3.99	16.94			N/A	N/A
D - B1079 East	1.87	0.03	0.29	1.87	7.60			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.80	0.03	0.27	3.80	3.80			N/A	N/A
B - Grundisburgh Rd West	2.14	0.03	0.29	2.14	8.95			N/A	N/A
C - A12 South	4.12	0.03	0.28	4.12	6.71			N/A	N/A
D - B1079 East	1.96	0.03	0.30	1.96	8.87			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.76	0.07	1.02	4.06	5.82			N/A	N/A
B - Grundisburgh Rd West	0.81	0.05	0.58	1.55	2.00			N/A	N/A
C - A12 South	1.77	0.06	0.81	4.41	6.54			N/A	N/A
D - B1079 East	0.68	0.05	0.51	1.50	1.61			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.10	0.04	0.41	2.74	4.51			N/A	N/A
B - Grundisburgh Rd West	0.47	0.03	0.35	1.41	1.60			N/A	N/A
C - A12 South	1.08	0.04	0.38	2.72	4.82			N/A	N/A
D - B1079 East	0.39	0.03	0.33	1.03	1.03			N/A	N/A

## 2028 Peak Construction, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	6.32	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)	Run automatically
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1579	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	290	100.000
C - A12 South		ONE HOUR	✓	1428	100.000
D - B1079 East		ONE HOUR	✓	313	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	218	1269	87
	B - Grundisburgh Rd West	73	0	89	128
	C - A12 South	1258	113	0	57
	D - B1079 East	126	104	83	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	6	2
	B - Grundisburgh Rd West	0	0	1	0
	C - A12 South	5	2	0	5
	D - B1079 East	0	1	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.69	4.62	2.2	4.7	A	1449	2173
B - Grundisburgh Rd West	0.44	8.98	0.8	3.7	A	266	399
C - A12 South	0.75	6.97	3.0	6.3	A	1311	1966
D - B1079 East	0.48	9.70	0.9	4.1	A	287	430

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	205	2586	0.460	1185	1096	0.0	0.8	2.563	A
B - Grundisburgh Rd West	218	55	1085	1011	0.216	217	326	0.0	0.3	4.526	A
C - A12 South	1075	289	339	2203	0.488	1071	1081	0.0	0.9	3.171	A
D - B1079 East	235	59	1186	1050	0.224	234	204	0.0	0.3	4.408	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1419	355	246	2557	0.555	1418	1312	0.8	1.2	3.156	A
B - Grundisburgh Rd West	260	65	1298	889	0.293	260	390	0.3	0.4	5.718	A
C - A12 South	1284	321	406	2155	0.596	1282	1294	0.9	1.5	4.114	A
D - B1079 East	281	70	1419	909	0.309	281	244	0.3	0.4	5.721	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1738	435	300	2517	0.690	1734	1603	1.2	2.2	4.573	A
B - Grundisburgh Rd West	319	80	1586	723	0.441	318	477	0.4	0.8	8.840	A
C - A12 South	1573	393	497	2090	0.753	1567	1582	1.5	3.0	6.807	A
D - B1079 East	344	86	1736	718	0.480	342	298	0.4	0.9	9.553	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1738	435	302	2517	0.691	1738	1609	2.2	2.2	4.624	A
B - Grundisburgh Rd West	319	80	1592	720	0.443	319	479	0.8	0.8	8.979	A
C - A12 South	1573	393	498	2088	0.753	1572	1586	3.0	3.0	6.971	A
D - B1079 East	344	86	1740	715	0.481	344	299	0.9	0.9	9.702	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1419	355	248	2555	0.555	1423	1321	2.2	1.3	3.191	A
B - Grundisburgh Rd West	260	65	1306	884	0.295	262	392	0.8	0.4	5.799	A
C - A12 South	1284	321	409	2153	0.596	1290	1299	3.0	1.5	4.200	A
D - B1079 East	281	70	1425	906	0.310	283	246	0.9	0.5	5.800	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1189	297	207	2585	0.460	1190	1103	1.3	0.9	2.585	A
B - Grundisburgh Rd West	218	55	1091	1008	0.216	219	328	0.4	0.3	4.566	A
C - A12 South	1075	269	342	2202	0.488	1077	1086	1.5	1.0	3.210	A
D - B1079 East	235	59	1192	1047	0.225	236	205	0.5	0.3	4.446	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A12 South	0.95	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.29	0.00	0.00	0.29	0.29			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.24	0.05	0.47	2.99	4.70			N/A	N/A
B - Grundisburgh Rd West	0.41	0.00	0.00	0.41	0.41			N/A	N/A
C - A12 South	1.46	0.05	0.45	3.76	6.01			N/A	N/A
D - B1079 East	0.44	0.00	0.00	0.44	0.44			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.19	0.03	0.26	2.19	2.19			N/A	N/A
B - Grundisburgh Rd West	0.78	0.03	0.26	0.78	0.78			N/A	N/A
C - A12 South	2.95	0.03	0.28	2.95	6.31			N/A	N/A
D - B1079 East	0.90	0.03	0.26	0.90	0.90			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.21	0.03	0.26	2.21	2.21			N/A	N/A
B - Grundisburgh Rd West	0.79	0.03	0.29	1.44	3.69			N/A	N/A
C - A12 South	3.00	0.03	0.27	3.00	3.00			N/A	N/A
D - B1079 East	0.92	0.03	0.29	1.38	4.07			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.26	0.18	1.15	1.89	2.39			N/A	N/A
B - Grundisburgh Rd West	0.42	0.00	0.00	0.42	0.42			N/A	N/A
C - A12 South	1.49	0.08	1.07	3.05	4.21			N/A	N/A
D - B1079 East	0.45	0.04	0.36	1.16	1.33			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.86	0.07	0.76	1.46	1.87			N/A	N/A
B - Grundisburgh Rd West	0.28	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.96	0.05	0.45	2.18	3.36			N/A	N/A
D - B1079 East	0.29	0.03	0.26	0.46	0.49			N/A	N/A



## 2034 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.47	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)	Run automatically
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	879	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	84	100.000
C - A12 South		ONE HOUR	✓	729	100.000
D - B1079 East		ONE HOUR	✓	87	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	5	75	786	14
B - Grundisburgh Rd West	32	0	38	14
C - A12 South	572	44	2	112
D - B1079 East	25	20	43	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	0	3	7	1
B - Grundisburgh Rd West	2	0	9	0
C - A12 South	10	0	0	1
D - B1079 East	8	0	13	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.38	2.24	0.6	2.8	A	806	1210
B - Grundisburgh Rd West	0.08	3.53	0.1	0.5	A	77	116
C - A12 South	0.35	2.46	0.5	2.6	A	669	1003
D - B1079 East	0.09	3.71	0.1	0.5	A	80	120

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	662	165	124	2614	0.253	660	476	0.0	0.3	1.843	A
B - Grundisburgh Rd West	63	16	537	1256	0.050	63	103	0.0	0.1	3.017	A
C - A12 South	549	137	93	2296	0.239	547	652	0.0	0.3	2.058	A
D - B1079 East	66	16	680	1244	0.053	65	105	0.0	0.1	3.055	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	790	198	149	2596	0.304	790	569	0.3	0.4	1.992	A
B - Grundisburgh Rd West	76	19	643	1196	0.063	76	124	0.1	0.1	3.213	A
C - A12 South	655	164	112	2283	0.287	655	780	0.3	0.4	2.211	A
D - B1079 East	78	20	814	1168	0.067	78	125	0.1	0.1	3.302	A

06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	968	242	182	2572	0.376	967	697	0.4	0.6	2.241	A
B - Grundisburgh Rd West	93	23	787	1113	0.083	93	152	0.1	0.1	3.527	A
C - A12 South	802	201	137	2265	0.354	802	955	0.4	0.5	2.459	A
D - B1079 East	96	24	996	1065	0.090	96	153	0.1	0.1	3.713	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	968	242	182	2572	0.376	968	698	0.6	0.6	2.243	A
B - Grundisburgh Rd West	93	23	788	1113	0.083	93	152	0.1	0.1	3.528	A
C - A12 South	802	201	137	2265	0.354	802	956	0.5	0.5	2.461	A
D - B1079 East	96	24	997	1065	0.090	96	153	0.1	0.1	3.714	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	790	198	149	2596	0.304	791	570	0.6	0.4	1.994	A
B - Grundisburgh Rd West	76	19	644	1195	0.063	76	124	0.1	0.1	3.217	A
C - A12 South	655	164	112	2283	0.287	656	781	0.5	0.4	2.213	A
D - B1079 East	78	20	815	1168	0.067	79	125	0.1	0.1	3.307	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	662	165	125	2614	0.253	662	477	0.4	0.3	1.844	A
B - Grundisburgh Rd West	63	16	539	1255	0.050	63	104	0.1	0.1	3.022	A
C - A12 South	549	137	94	2296	0.239	549	654	0.4	0.3	2.062	A
D - B1079 East	66	16	682	1243	0.053	66	105	0.1	0.1	3.058	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - Grundisburgh Rd West	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - B1079 East	0.07	0.03	0.25	0.45	0.48			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.25	0.60	0.60			N/A	N/A
B - Grundisburgh Rd West	0.09	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.55	0.03	0.25	0.55	0.55			N/A	N/A
D - B1079 East	0.10	0.03	0.26	0.47	0.49			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.29	1.26	2.76			N/A	N/A
B - Grundisburgh Rd West	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - A12 South	0.55	0.03	0.30	1.38	2.56			N/A	N/A
D - B1079 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - Grundisburgh Rd West	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A12 South	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - B1079 East	0.07	0.00	0.00	0.07	0.07			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 2034 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	11.35	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)	Run automatically
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1627	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	219	100.000
C - A12 South		ONE HOUR	✓	1629	100.000
D - B1079 East		ONE HOUR	✓	217	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	298	1273	49
	B - Grundisburgh Rd West	51	0	105	64
	C - A12 South	1273	79	2	275
	D - B1079 East	83	77	58	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	5	6	1
	B - Grundisburgh Rd West	8	0	5	3
	C - A12 South	10	1	0	0
	D - B1079 East	2	0	9	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.75	6.15	3.0	6.4	A	1493	2239
B - Grundisburgh Rd West	0.45	12.15	0.8	3.9	B	201	301
C - A12 South	0.90	16.58	7.9	40.1	C	1495	2243
D - B1079 East	0.38	9.30	0.6	2.8	A	199	299

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	334	2488	0.492	1221	1059	0.0	1.0	2.832	A
B - Grundisburgh Rd West	165	41	1229	863	0.191	164	340	0.0	0.2	5.143	A
C - A12 South	1227	307	348	2121	0.578	1221	1079	0.0	1.4	3.977	A
D - B1079 East	164	41	1264	975	0.168	163	290	0.0	0.2	4.424	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1462	366	400	2441	0.599	1460	1267	1.0	1.5	3.663	A
B - Grundisburgh Rd West	197	49	1470	726	0.271	196	407	0.2	0.4	6.785	A
C - A12 South	1465	366	416	2072	0.707	1461	1291	1.4	2.4	5.852	A
D - B1079 East	195	49	1512	829	0.236	195	347	0.2	0.3	5.675	A

## 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1791	448	486	2379	0.753	1785	1539	1.5	3.0	6.005	A
B - Grundisburgh Rd West	241	60	1786	547	0.441	240	497	0.4	0.8	11.641	B
C - A12 South	1794	449	509	2006	0.895	1774	1578	2.4	7.4	14.458	B
D - B1079 East	239	60	1849	630	0.380	238	422	0.3	0.6	9.156	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1791	448	490	2376	0.754	1791	1554	3.0	3.0	6.149	A
B - Grundisburgh Rd West	241	60	1804	537	0.449	241	499	0.8	0.8	12.146	B
C - A12 South	1794	449	510	2004	0.895	1792	1584	7.4	7.9	16.581	C
D - B1079 East	239	60	1855	626	0.382	239	426	0.6	0.6	9.297	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1462	366	406	2437	0.600	1468	1288	3.0	1.5	3.739	A
B - Grundisburgh Rd West	197	49	1495	712	0.276	199	410	0.8	0.4	7.033	A
C - A12 South	1465	366	419	2070	0.708	1486	1299	7.9	2.5	6.386	A
D - B1079 East	195	49	1521	823	0.237	196	352	0.6	0.3	5.753	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	337	2486	0.493	1227	1068	1.5	1.0	2.862	A
B - Grundisburgh Rd West	165	41	1239	858	0.192	165	342	0.4	0.2	5.207	A
C - A12 South	1227	307	350	2120	0.579	1231	1085	2.5	1.4	4.070	A
D - B1079 East	164	41	1271	972	0.168	164	293	0.3	0.2	4.459	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.96	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - A12 South	1.36	0.56	1.26	1.75	1.91			N/A	N/A
D - B1079 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.48	0.04	0.43	3.86	6.41			N/A	N/A
B - Grundisburgh Rd West	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C - A12 South	2.36	0.04	0.42	6.48	11.46			N/A	N/A
D - B1079 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.97	0.03	0.27	2.97	4.85			N/A	N/A
B - Grundisburgh Rd West	0.77	0.03	0.26	0.77	0.77			N/A	N/A
C - A12 South	7.35	0.04	0.39	18.24	40.12			N/A	N/A
D - B1079 East	0.60	0.03	0.26	0.60	0.60			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.02	0.03	0.26	3.02	3.02			N/A	N/A
B - Grundisburgh Rd West	0.80	0.03	0.31	1.40	3.92			N/A	N/A
C - A12 South	7.87	0.03	0.32	9.33	37.40			N/A	N/A
D - B1079 East	0.61	0.03	0.32	1.23	2.83			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.52	0.09	1.14	2.99	4.03			N/A	N/A
B - Grundisburgh Rd West	0.39	0.03	0.27	0.48	0.66			N/A	N/A
C - A12 South	2.47	0.05	0.45	6.84	11.60			N/A	N/A
D - B1079 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.98	0.05	0.48	2.16	3.25			N/A	N/A
B - Grundisburgh Rd West	0.24	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	1.39	0.03	0.32	2.88	7.17			N/A	N/A
D - B1079 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 2034 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	69.14	F

#### 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)	Run automatically
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1748	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	556	100.000
C - A12 South		ONE HOUR	✓	1627	100.000
D - B1079 East		ONE HOUR	✓	448	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	399	1233	100
	B - Grundisburgh Rd West	93	0	204	258
	C - A12 South	1137	90	1	399
	D - B1079 East	169	111	168	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	9	1
	B - Grundisburgh Rd West	13	0	3	1
	C - A12 South	11	2	0	2
	D - B1079 East	2	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.93	22.57	11.3	62.8	C	1604	2406
B - Grundisburgh Rd West	1.21	290.52	54.2	93.6	F	510	765
C - A12 South	0.98	46.36	22.5	97.1	E	1493	2239
D - B1079 East	0.94	69.95	9.1	41.7	F	411	616

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1316	329	645	2217	0.593	1310	1059	0.0	1.4	3.943	A
B - Grundisburgh Rd West	418	105	1289	841	0.497	414	449	0.0	1.0	8.360	A
C - A12 South	1225	306	520	1991	0.615	1219	1203	0.0	1.6	4.625	A
D - B1079 East	337	84	1388	894	0.377	335	566	0.0	0.6	6.412	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1571	393	769	2130	0.738	1566	1266	1.4	2.7	6.331	A
B - Grundisburgh Rd West	499	125	1541	696	0.718	494	537	1.0	2.4	17.362	C
C - A12 South	1463	366	622	1919	0.762	1457	1437	1.6	3.1	7.691	A
D - B1079 East	403	101	1659	730	0.552	400	676	0.6	1.2	10.851	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1924	481	854	2070	0.930	1895	1495	2.7	10.2	18.082	C
B - Grundisburgh Rd West	612	153	1836	525	1.165	512	645	2.4	27.3	123.337	F
C - A12 South	1791	448	744	1831	0.978	1737	1703	3.1	16.6	28.879	D
D - B1079 East	493	123	1976	536	0.919	471	773	1.2	6.7	45.196	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1924	481	855	2069	0.930	1920	1519	10.2	11.3	22.567	C
B - Grundisburgh Rd West	612	153	1870	506	1.209	504	656	27.3	54.2	290.521	F
C - A12 South	1791	448	758	1822	0.983	1768	1722	16.6	22.5	46.363	E
D - B1079 East	493	123	1997	524	0.942	483	778	6.7	9.1	69.952	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1571	393	905	2034	0.772	1603	1359	11.3	3.5	8.901	A
B - Grundisburgh Rd West	499	125	1632	644	0.776	632	558	54.2	21.0	216.713	F
C - A12 South	1463	366	651	1898	0.771	1539	1526	22.5	3.5	12.075	B
D - B1079 East	403	101	1744	679	0.593	433	763	9.1	1.5	16.356	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1316	329	718	2166	0.608	1324	1085	3.5	1.6	4.313	A
B - Grundisburgh Rd West	418	105	1305	832	0.502	498	455	21.0	1.0	13.680	B
C - A12 South	1225	306	527	1986	0.617	1232	1245	3.5	1.6	4.823	A
D - B1079 East	337	84	1432	868	0.388	341	610	1.5	0.6	6.867	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.44	0.51	1.33	1.94	2.45			N/A	N/A
B - Grundisburgh Rd West	0.97	0.06	0.76	1.82	2.52			N/A	N/A
C - A12 South	1.58	0.29	1.39	2.51	2.96			N/A	N/A
D - B1079 East	0.60	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.74	0.04	0.43	7.58	13.55			N/A	N/A
B - Grundisburgh Rd West	2.38	0.05	0.46	6.58	11.01			N/A	N/A
C - A12 South	3.10	0.04	0.45	8.66	15.17			N/A	N/A
D - B1079 East	1.20	0.05	0.46	2.92	4.61			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	10.16	0.05	0.69	29.41	52.58			N/A	N/A
B - Grundisburgh Rd West	27.33	8.45	24.47	45.70	53.33			N/A	N/A
C - A12 South	16.57	0.16	6.57	44.93	64.68			N/A	N/A
D - B1079 East	6.71	0.08	1.69	18.67	28.10			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	11.34	0.04	0.38	26.13	62.77			N/A	N/A
B - Grundisburgh Rd West	54.18	23.62	50.84	82.66	93.59			N/A	N/A
C - A12 South	22.50	0.12	6.27	64.28	97.07			N/A	N/A
D - B1079 East	9.11	0.07	1.47	26.35	41.66			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.52	0.05	0.75	9.88	15.93			N/A	N/A
B - Grundisburgh Rd West	21.03	6.69	18.83	34.64	40.30			N/A	N/A
C - A12 South	3.51	0.04	0.42	9.66	17.95			N/A	N/A
D - B1079 East	1.51	0.04	0.39	3.95	7.16			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.57	0.03	0.31	2.73	8.03			N/A	N/A
B - Grundisburgh Rd West	1.03	0.03	0.26	1.03	1.03			N/A	N/A
C - A12 South	1.63	0.03	0.29	1.63	7.31			N/A	N/A
D - B1079 East	0.64	0.03	0.28	0.77	2.47			N/A	N/A

## 2034 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	11.36	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)	Run automatically
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1633	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	452	100.000
C - A12 South		ONE HOUR	✓	1453	100.000
D - B1079 East		ONE HOUR	✓	377	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	14	290	1200	129
B - Grundisburgh Rd West	106	1	178	167
C - A12 South	1158	156	3	136
D - B1079 East	194	96	86	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	71	3	8	3
B - Grundisburgh Rd West	4	0	3	2
C - A12 South	7	4	0	0
D - B1079 East	2	2	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.78	7.05	3.5	8.7	A	1498	2247
B - Grundisburgh Rd West	0.77	23.85	3.2	15.6	C	414	622
C - A12 South	0.83	10.93	4.7	21.5	B	1334	2000
D - B1079 East	0.67	17.57	2.0	8.5	C	346	518

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1229	307	363	2428	0.506	1225	1103	0.0	1.0	2.983	A
B - Grundisburgh Rd West	340	85	1128	948	0.359	338	407	0.0	0.6	5.880	A
C - A12 South	1094	274	446	2080	0.526	1090	1100	0.0	1.1	3.618	A
D - B1079 East	284	71	1264	978	0.290	282	324	0.0	0.4	5.164	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1468	367	435	2377	0.617	1465	1320	1.0	1.6	3.938	A
B - Grundisburgh Rd West	406	102	1350	821	0.495	404	487	0.6	1.0	8.608	A
C - A12 South	1306	327	533	2016	0.648	1304	1316	1.1	1.8	5.033	A
D - B1079 East	339	85	1512	827	0.410	337	388	0.4	0.7	7.341	A

## 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1797	449	527	2311	0.778	1790	1607	1.6	3.4	6.814	A
B - Grundisburgh Rd West	497	124	1645	652	0.763	489	594	1.0	2.9	21.210	C
C - A12 South	1600	400	650	1930	0.829	1589	1606	1.8	4.5	10.233	B
D - B1079 East	415	104	1846	624	0.665	410	471	0.7	1.9	16.468	C

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1797	449	533	2307	0.779	1797	1619	3.4	3.5	7.050	A
B - Grundisburgh Rd West	497	124	1656	645	0.770	496	598	2.9	3.2	23.847	C
C - A12 South	1600	400	655	1927	0.830	1599	1615	4.5	4.7	10.927	B
D - B1079 East	415	104	1855	618	0.671	414	475	1.9	2.0	17.572	C

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1468	367	444	2371	0.619	1475	1337	3.5	1.6	4.051	A
B - Grundisburgh Rd West	406	102	1366	812	0.500	415	492	3.2	1.0	9.246	A
C - A12 South	1306	327	540	2011	0.650	1318	1329	4.7	1.9	5.275	A
D - B1079 East	339	85	1525	819	0.413	344	393	2.0	0.7	7.649	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1229	307	367	2425	0.507	1232	1111	1.6	1.0	3.023	A
B - Grundisburgh Rd West	340	85	1137	943	0.361	342	410	1.0	0.6	6.003	A
C - A12 South	1094	274	449	2078	0.527	1097	1107	1.9	1.1	3.684	A
D - B1079 East	284	71	1272	973	0.291	285	327	0.7	0.4	5.239	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.55	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.10	0.55	1.02	1.43	1.48			N/A	N/A
D - B1079 East	0.41	0.00	0.00	0.41	0.41			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.60	0.04	0.42	4.23	7.14			N/A	N/A
B - Grundisburgh Rd West	0.96	0.06	0.68	1.87	2.67			N/A	N/A
C - A12 South	1.81	0.04	0.43	4.87	8.32			N/A	N/A
D - B1079 East	0.68	0.06	0.67	1.11	1.11			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.38	0.03	0.28	3.38	8.69			N/A	N/A
B - Grundisburgh Rd West	2.92	0.03	0.33	5.77	15.59			N/A	N/A
C - A12 South	4.54	0.03	0.31	5.32	21.50			N/A	N/A
D - B1079 East	1.88	0.03	0.29	1.88	7.37			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.46	0.03	0.27	3.46	3.46			N/A	N/A
B - Grundisburgh Rd West	3.15	0.03	0.31	3.91	15.10			N/A	N/A
C - A12 South	4.72	0.03	0.28	4.72	10.76			N/A	N/A
D - B1079 East	1.97	0.03	0.29	1.97	8.47			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.64	0.08	1.07	3.64	5.00			N/A	N/A
B - Grundisburgh Rd West	1.02	0.05	0.46	2.39	3.64			N/A	N/A
C - A12 South	1.88	0.05	0.68	4.86	7.45			N/A	N/A
D - B1079 East	0.71	0.05	0.56	1.12	1.69			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.04	0.43	2.51	3.92			N/A	N/A
B - Grundisburgh Rd West	0.57	0.03	0.32	1.19	2.50			N/A	N/A
C - A12 South	1.12	0.04	0.36	2.79	5.33			N/A	N/A
D - B1079 East	0.41	0.03	0.34	1.16	1.16			N/A	N/A



## 2034 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	7.66	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)	Run automatically
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1735	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	359	100.000
C - A12 South		ONE HOUR	✓	1459	100.000
D - B1079 East		ONE HOUR	✓	305	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	325	1298	107
	B - Grundisburgh Rd West	94	0	111	154
	C - A12 South	1227	153	0	79
	D - B1079 East	132	83	90	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	3	2
	B - Grundisburgh Rd West	3	0	0	0
	C - A12 South	3	1	0	4
	D - B1079 East	0	1	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.76	5.82	3.1	6.7	A	1592	2388
B - Grundisburgh Rd West	0.54	10.73	1.2	4.4	B	329	494
C - A12 South	0.79	8.24	3.6	11.8	A	1339	2009
D - B1079 East	0.52	11.84	1.1	4.8	B	280	419

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1306	326	258	2616	0.499	1302	1093	0.0	1.0	2.731	A
B - Grundisburgh Rd West	270	68	1082	1016	0.266	269	421	0.0	0.4	4.805	A
C - A12 South	1099	275	408	2183	0.503	1095	1125	0.0	1.0	3.296	A
D - B1079 East	229	57	1305	997	0.230	228	255	0.0	0.3	4.677	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1559	390	309	2579	0.605	1557	1308	1.0	1.5	3.516	A
B - Grundisburgh Rd West	322	81	1295	896	0.360	322	503	0.4	0.6	6.256	A
C - A12 South	1312	328	489	2124	0.618	1309	1345	1.0	1.6	4.409	A
D - B1079 East	274	68	1561	847	0.324	273	305	0.3	0.5	6.270	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1910	477	377	2529	0.755	1904	1597	1.5	3.0	5.705	A
B - Grundisburgh Rd West	395	99	1581	734	0.538	393	615	0.6	1.1	10.461	B
C - A12 South	1607	402	597	2044	0.786	1599	1644	1.6	3.5	7.947	A
D - B1079 East	336	84	1908	643	0.522	333	373	0.5	1.1	11.535	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1910	477	379	2528	0.756	1910	1605	3.0	3.1	5.824	A
B - Grundisburgh Rd West	395	99	1589	730	0.541	395	617	1.1	1.2	10.730	B
C - A12 South	1607	402	600	2042	0.787	1606	1650	3.5	3.6	8.241	A
D - B1079 East	336	84	1914	639	0.525	335	374	1.1	1.1	11.836	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1559	390	311	2577	0.605	1565	1319	3.1	1.5	3.579	A
B - Grundisburgh Rd West	322	81	1305	890	0.362	325	507	1.2	0.6	6.391	A
C - A12 South	1312	328	493	2121	0.618	1320	1353	3.6	1.6	4.535	A
D - B1079 East	274	68	1569	842	0.325	276	307	1.1	0.5	6.396	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1306	326	260	2615	0.499	1308	1100	1.5	1.0	2.758	A
B - Grundisburgh Rd West	270	68	1089	1013	0.267	271	423	0.6	0.4	4.860	A
C - A12 South	1099	275	411	2181	0.504	1101	1130	1.6	1.0	3.340	A
D - B1079 East	229	57	1311	993	0.231	230	257	0.5	0.3	4.724	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - A12 South	1.01	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.30	0.00	0.00	0.30	0.30			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.51	0.04	0.42	3.96	6.70			N/A	N/A
B - Grundisburgh Rd West	0.56	0.06	0.68	1.34	1.42			N/A	N/A
C - A12 South	1.60	0.04	0.44	4.21	6.97			N/A	N/A
D - B1079 East	0.47	0.04	0.40	1.23	1.37			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.01	0.03	0.27	3.01	4.43			N/A	N/A
B - Grundisburgh Rd West	1.14	0.03	0.26	1.14	1.14			N/A	N/A
C - A12 South	3.53	0.03	0.29	3.53	11.77			N/A	N/A
D - B1079 East	1.06	0.03	0.26	1.06	1.06			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.05	0.03	0.26	3.05	3.05			N/A	N/A
B - Grundisburgh Rd West	1.16	0.03	0.28	1.16	4.38			N/A	N/A
C - A12 South	3.61	0.03	0.27	3.61	3.61			N/A	N/A
D - B1079 East	1.09	0.03	0.29	1.47	4.82			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.55	0.09	1.16	3.04	4.10			N/A	N/A
B - Grundisburgh Rd West	0.57	0.06	0.66	1.33	1.42			N/A	N/A
C - A12 South	1.64	0.07	0.96	3.80	5.44			N/A	N/A
D - B1079 East	0.49	0.04	0.44	1.27	1.38			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.00	0.05	0.49	2.23	3.33			N/A	N/A
B - Grundisburgh Rd West	0.37	0.03	0.32	1.03	1.27			N/A	N/A
C - A12 South	1.02	0.04	0.40	2.54	4.16			N/A	N/A
D - B1079 East	0.30	0.03	0.28	0.50	1.00			N/A	N/A

## 2034 Operational Led, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	2.47	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)	Run automatically
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	880	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	83	100.000
C - A12 South		ONE HOUR	✓	730	100.000
D - B1079 East		ONE HOUR	✓	87	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	5	75	787	14
B - Grundisburgh Rd West	31	0	38	14
C - A12 South	573	44	2	112
D - B1079 East	25	20	43	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	0	3	7	1
B - Grundisburgh Rd West	2	0	9	0
C - A12 South	10	0	0	1
D - B1079 East	8	0	13	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.38	2.24	0.6	2.8	A	807	1211
B - Grundisburgh Rd West	0.08	3.52	0.1	0.5	A	76	114
C - A12 South	0.35	2.46	0.5	2.6	A	670	1005
D - B1079 East	0.09	3.72	0.1	0.5	A	80	120

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	662	166	124	2614	0.253	661	476	0.0	0.3	1.843	A
B - Grundisburgh Rd West	63	16	538	1257	0.050	62	103	0.0	0.1	3.012	A
C - A12 South	549	137	93	2296	0.239	548	653	0.0	0.3	2.058	A
D - B1079 East	66	16	681	1243	0.053	65	105	0.0	0.1	3.056	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	791	198	149	2597	0.305	791	569	0.3	0.4	1.993	A
B - Grundisburgh Rd West	75	19	644	1197	0.062	75	124	0.1	0.1	3.208	A
C - A12 South	656	164	112	2283	0.287	656	781	0.3	0.4	2.212	A
D - B1079 East	78	20	814	1168	0.067	78	125	0.1	0.1	3.303	A

## 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	969	242	182	2573	0.377	968	697	0.4	0.6	2.242	A
B - Grundisburgh Rd West	92	23	788	1114	0.082	91	152	0.1	0.1	3.521	A
C - A12 South	804	201	137	2265	0.355	803	957	0.4	0.5	2.460	A
D - B1079 East	96	24	997	1065	0.090	96	153	0.1	0.1	3.715	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	969	242	182	2572	0.377	969	698	0.6	0.6	2.244	A
B - Grundisburgh Rd West	92	23	789	1113	0.082	92	152	0.1	0.1	3.522	A
C - A12 South	804	201	137	2265	0.355	804	957	0.5	0.5	2.462	A
D - B1079 East	96	24	998	1064	0.090	96	153	0.1	0.1	3.716	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	791	198	149	2596	0.305	792	570	0.6	0.4	1.995	A
B - Grundisburgh Rd West	75	19	645	1196	0.063	75	124	0.1	0.1	3.210	A
C - A12 South	656	164	112	2283	0.287	657	782	0.5	0.4	2.215	A
D - B1079 East	78	20	816	1167	0.067	79	125	0.1	0.1	3.308	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	662	166	125	2614	0.253	663	477	0.4	0.3	1.847	A
B - Grundisburgh Rd West	63	16	540	1256	0.050	63	104	0.1	0.1	3.017	A
C - A12 South	549	137	94	2296	0.239	550	655	0.4	0.3	2.061	A
D - B1079 East	66	16	683	1242	0.053	66	105	0.1	0.1	3.061	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.31	0.00	0.00	0.31	0.31			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - Grundisburgh Rd West	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - B1079 East	0.07	0.03	0.25	0.45	0.48			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.25	0.60	0.60			N/A	N/A
B - Grundisburgh Rd West	0.09	0.03	0.26	0.47	0.49			N/A	N/A
C - A12 South	0.55	0.03	0.25	0.55	0.55			N/A	N/A
D - B1079 East	0.10	0.03	0.26	0.47	0.49			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.60	0.03	0.29	1.25	2.76			N/A	N/A
B - Grundisburgh Rd West	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - A12 South	0.55	0.03	0.30	1.38	2.57			N/A	N/A
D - B1079 East	0.10	0.00	0.00	0.10	0.10			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.44	0.00	0.00	0.44	0.44			N/A	N/A
B - Grundisburgh Rd West	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - A12 South	0.40	0.00	0.00	0.40	0.40			N/A	N/A
D - B1079 East	0.07	0.00	0.00	0.07	0.07			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.00	0.00	0.34	0.34			N/A	N/A
B - Grundisburgh Rd West	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C - A12 South	0.32	0.00	0.00	0.32	0.32			N/A	N/A
D - B1079 East	0.06	0.00	0.00	0.06	0.06			N/A	N/A

## 2034 Operational Led, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	11.30	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)	Run automatically
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1628	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	217	100.000
C - A12 South		ONE HOUR	✓	1626	100.000
D - B1079 East		ONE HOUR	✓	217	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	7	298	1274	49
	B - Grundisburgh Rd West	50	0	105	63
	C - A12 South	1273	78	2	273
	D - B1079 East	83	77	58	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	5	6	1
	B - Grundisburgh Rd West	7	0	5	3
	C - A12 South	10	1	0	0
	D - B1079 East	2	0	9	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.75	6.13	3.0	6.4	A	1493	2240
B - Grundisburgh Rd West	0.44	12.02	0.8	3.8	B	199	299
C - A12 South	0.89	16.50	7.8	39.9	C	1492	2239
D - B1079 East	0.38	9.31	0.6	2.8	A	199	299

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	332	2490	0.492	1221	1058	0.0	1.0	2.830	A
B - Grundisburgh Rd West	163	41	1228	864	0.189	162	339	0.0	0.2	5.123	A
C - A12 South	1224	306	348	2119	0.578	1219	1080	0.0	1.4	3.977	A
D - B1079 East	164	41	1265	975	0.168	163	288	0.0	0.2	4.427	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1463	366	397	2443	0.599	1461	1266	1.0	1.5	3.659	A
B - Grundisburgh Rd West	195	49	1468	727	0.268	195	406	0.2	0.4	6.749	A
C - A12 South	1462	366	416	2070	0.706	1458	1292	1.4	2.4	5.847	A
D - B1079 East	195	49	1513	828	0.236	195	345	0.2	0.3	5.680	A

## 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1792	448	483	2381	0.753	1786	1538	1.5	3.0	5.991	A
B - Grundisburgh Rd West	239	60	1784	548	0.436	237	496	0.4	0.8	11.533	B
C - A12 South	1791	448	509	2003	0.894	1771	1579	2.4	7.3	14.405	B
D - B1079 East	239	60	1850	629	0.380	238	419	0.3	0.6	9.171	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1792	448	487	2378	0.754	1792	1553	3.0	3.0	6.135	A
B - Grundisburgh Rd West	239	60	1801	538	0.444	239	498	0.8	0.8	12.023	B
C - A12 South	1791	448	510	2002	0.894	1789	1585	7.3	7.8	16.498	C
D - B1079 East	239	60	1856	626	0.382	239	423	0.6	0.6	9.312	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1463	366	403	2439	0.600	1469	1287	3.0	1.5	3.734	A
B - Grundisburgh Rd West	195	49	1493	713	0.274	197	409	0.8	0.4	6.990	A
C - A12 South	1462	366	419	2068	0.707	1484	1300	7.8	2.5	6.379	A
D - B1079 East	195	49	1522	823	0.237	196	350	0.6	0.3	5.756	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1225	306	334	2488	0.493	1227	1067	1.5	1.0	2.862	A
B - Grundisburgh Rd West	163	41	1237	859	0.190	164	341	0.4	0.2	5.187	A
C - A12 South	1224	306	350	2117	0.578	1229	1086	2.5	1.4	4.071	A
D - B1079 East	164	41	1272	971	0.168	164	290	0.3	0.2	4.463	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.96	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C - A12 South	1.35	0.56	1.25	1.75	1.90			N/A	N/A
D - B1079 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.48	0.04	0.43	3.86	6.40			N/A	N/A
B - Grundisburgh Rd West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - A12 South	2.36	0.04	0.42	6.46	11.42			N/A	N/A
D - B1079 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.96	0.03	0.27	2.96	4.81			N/A	N/A
B - Grundisburgh Rd West	0.76	0.03	0.26	0.76	0.76			N/A	N/A
C - A12 South	7.31	0.04	0.39	18.06	39.92			N/A	N/A
D - B1079 East	0.60	0.03	0.26	0.60	0.60			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.01	0.03	0.26	3.01	3.01			N/A	N/A
B - Grundisburgh Rd West	0.79	0.03	0.31	1.40	3.85			N/A	N/A
C - A12 South	7.82	0.03	0.32	9.12	36.98			N/A	N/A
D - B1079 East	0.61	0.03	0.32	1.23	2.84			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.51	0.09	1.14	2.98	4.02			N/A	N/A
B - Grundisburgh Rd West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A12 South	2.47	0.05	0.46	6.82	11.56			N/A	N/A
D - B1079 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.98	0.05	0.48	2.15	3.25			N/A	N/A
B - Grundisburgh Rd West	0.24	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	1.39	0.03	0.32	2.88	7.15			N/A	N/A
D - B1079 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 2034 Operational Led, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	63.71	F

#### 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)	Run automatically
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1785	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	542	100.000
C - A12 South		ONE HOUR	✓	1621	100.000
D - B1079 East		ONE HOUR	✓	444	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	16	401	1266	102
	B - Grundisburgh Rd West	89	0	175	277
	C - A12 South	1201	91	1	328
	D - B1079 East	166	110	168	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	13	3	9	1
	B - Grundisburgh Rd West	13	0	4	0
	C - A12 South	11	3	0	3
	D - B1079 East	2	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.93	21.23	10.9	60.1	C	1638	2457
B - Grundisburgh Rd West	1.18	253.35	46.3	85.4	F	497	745
C - A12 South	0.98	46.45	22.4	96.9	E	1487	2231
D - B1079 East	0.95	76.05	9.9	43.2	F	407	611

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1344	336	584	2260	0.595	1338	1102	0.0	1.5	3.881	A
B - Grundisburgh Rd West	408	102	1282	842	0.484	404	451	0.0	0.9	8.151	A
C - A12 South	1220	305	519	1983	0.616	1214	1206	0.0	1.6	4.647	A
D - B1079 East	334	84	1393	890	0.375	332	529	0.0	0.6	6.417	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1604	401	697	2180	0.736	1599	1317	1.5	2.7	6.148	A
B - Grundisburgh Rd West	487	122	1532	697	0.699	482	539	0.9	2.2	16.374	C
C - A12 South	1457	364	620	1911	0.763	1451	1441	1.6	3.1	7.732	A
D - B1079 East	399	100	1665	725	0.550	397	632	0.6	1.2	10.878	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1965	491	778	2122	0.926	1937	1557	2.7	9.8	17.234	C
B - Grundisburgh Rd West	596	149	1825	527	1.132	511	647	2.2	23.6	109.885	F
C - A12 South	1785	446	742	1824	0.978	1731	1716	3.1	16.5	28.958	D
D - B1079 East	489	122	1992	526	0.930	465	722	1.2	7.1	47.787	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1965	491	780	2121	0.926	1961	1584	9.8	10.9	21.232	C
B - Grundisburgh Rd West	596	149	1858	507	1.175	505	658	23.6	46.3	253.352	F
C - A12 South	1785	446	755	1815	0.983	1761	1736	16.5	22.4	46.451	E
D - B1079 East	489	122	2014	513	0.953	478	727	7.1	9.9	76.054	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1604	401	838	2080	0.771	1634	1416	10.9	3.5	8.567	A
B - Grundisburgh Rd West	487	122	1623	644	0.756	631	560	46.3	10.4	168.764	F
C - A12 South	1457	364	651	1889	0.771	1533	1528	22.4	3.5	12.186	B
D - B1079 East	399	100	1746	677	0.589	433	727	9.9	1.5	16.674	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1344	336	622	2233	0.602	1352	1121	3.5	1.5	4.119	A
B - Grundisburgh Rd West	408	102	1297	833	0.489	446	456	10.4	1.0	10.201	B
C - A12 South	1220	305	526	1978	0.617	1228	1231	3.5	1.6	4.850	A
D - B1079 East	334	84	1419	875	0.382	338	554	1.5	0.6	6.746	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.45	0.52	1.34	1.94	2.43			N/A	N/A
B - Grundisburgh Rd West	0.92	0.07	0.81	1.61	1.98			N/A	N/A
C - A12 South	1.58	0.29	1.40	2.51	2.96			N/A	N/A
D - B1079 East	0.59	0.13	0.88	1.38	1.44			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.72	0.04	0.42	7.51	13.48			N/A	N/A
B - Grundisburgh Rd West	2.19	0.05	0.45	5.97	10.01			N/A	N/A
C - A12 South	3.10	0.04	0.45	8.67	15.17			N/A	N/A
D - B1079 East	1.19	0.04	0.45	2.92	4.64			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	9.84	0.05	0.49	28.09	51.52			N/A	N/A
B - Grundisburgh Rd West	23.59	5.92	20.53	41.37	49.03			N/A	N/A
C - A12 South	16.55	0.16	6.57	44.87	64.57			N/A	N/A
D - B1079 East	7.11	0.10	2.15	19.44	28.67			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	10.91	0.04	0.37	23.55	60.05			N/A	N/A
B - Grundisburgh Rd West	46.35	17.28	42.67	74.26	85.35			N/A	N/A
C - A12 South	22.45	0.12	6.26	64.15	96.87			N/A	N/A
D - B1079 East	9.90	0.09	2.26	28.20	43.17			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.49	0.06	0.82	9.78	15.62			N/A	N/A
B - Grundisburgh Rd West	10.43	0.85	7.31	22.32	28.56			N/A	N/A
C - A12 South	3.53	0.04	0.42	9.72	18.02			N/A	N/A
D - B1079 East	1.49	0.04	0.38	3.87	7.17			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.53	0.03	0.31	2.65	7.82			N/A	N/A
B - Grundisburgh Rd West	0.98	0.03	0.27	0.98	1.04			N/A	N/A
C - A12 South	1.63	0.03	0.29	1.63	7.32			N/A	N/A
D - B1079 East	0.63	0.03	0.28	0.63	2.20			N/A	N/A



## 2034 Operational Led, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	11.32	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)	Run automatically
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1630	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	452	100.000
C - A12 South		ONE HOUR	✓	1452	100.000
D - B1079 East		ONE HOUR	✓	377	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	14	290	1197	129
B - Grundisburgh Rd West	106	1	178	167
C - A12 South	1157	156	3	136
D - B1079 East	194	96	86	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To			
	A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
A - A12 North	71	3	8	3
B - Grundisburgh Rd West	4	0	3	2
C - A12 South	7	4	0	0
D - B1079 East	2	2	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.78	7.03	3.4	8.6	A	1495	2243
B - Grundisburgh Rd West	0.77	23.74	3.1	15.5	C	414	622
C - A12 South	0.83	10.90	4.7	21.4	B	1333	1999
D - B1079 East	0.67	17.47	2.0	8.4	C	346	518

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1227	307	363	2426	0.506	1223	1102	0.0	1.0	2.982	A
B - Grundisburgh Rd West	340	85	1128	948	0.359	338	407	0.0	0.6	5.875	A
C - A12 South	1093	273	446	2080	0.526	1089	1098	0.0	1.1	3.615	A
D - B1079 East	284	71	1262	978	0.290	282	324	0.0	0.4	5.157	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1465	366	435	2375	0.617	1463	1319	1.0	1.6	3.935	A
B - Grundisburgh Rd West	406	102	1349	822	0.494	404	487	0.6	1.0	8.603	A
C - A12 South	1306	326	533	2016	0.648	1303	1314	1.1	1.8	5.028	A
D - B1079 East	339	85	1510	828	0.409	337	388	0.4	0.7	7.327	A

15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1794	449	527	2310	0.777	1787	1606	1.6	3.4	6.795	A
B - Grundisburgh Rd West	497	124	1644	653	0.762	490	594	1.0	2.9	21.136	C
C - A12 South	1599	400	650	1930	0.828	1588	1603	1.8	4.5	10.207	B
D - B1079 East	415	104	1843	625	0.663	410	471	0.7	1.9	16.384	C

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1794	449	533	2305	0.778	1794	1618	3.4	3.4	7.028	A
B - Grundisburgh Rd West	497	124	1655	646	0.770	496	598	2.9	3.1	23.743	C
C - A12 South	1599	400	655	1927	0.830	1598	1611	4.5	4.7	10.896	B
D - B1079 East	415	104	1852	620	0.669	414	476	1.9	2.0	17.469	C

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1465	366	444	2369	0.618	1472	1336	3.4	1.6	4.046	A
B - Grundisburgh Rd West	406	102	1365	813	0.500	415	492	3.1	1.0	9.229	A
C - A12 South	1306	326	540	2011	0.649	1317	1326	4.7	1.9	5.266	A
D - B1079 East	339	85	1523	820	0.413	344	393	2.0	0.7	7.634	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1227	307	367	2423	0.506	1229	1111	1.6	1.0	3.022	A
B - Grundisburgh Rd West	340	85	1136	944	0.360	342	410	1.0	0.6	5.998	A
C - A12 South	1093	273	449	2078	0.526	1096	1105	1.9	1.1	3.678	A
D - B1079 East	284	71	1270	974	0.291	285	327	0.7	0.4	5.234	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.55	0.55	1.00	1.40	1.45			N/A	N/A
C - A12 South	1.10	0.55	1.01	1.43	1.48			N/A	N/A
D - B1079 East	0.40	0.00	0.00	0.40	0.40			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.59	0.04	0.42	4.21	7.11			N/A	N/A
B - Grundisburgh Rd West	0.96	0.06	0.68	1.87	2.66			N/A	N/A
C - A12 South	1.81	0.04	0.43	4.86	8.30			N/A	N/A
D - B1079 East	0.68	0.06	0.67	1.09	1.09			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.37	0.03	0.28	3.37	8.56			N/A	N/A
B - Grundisburgh Rd West	2.91	0.03	0.33	5.71	15.52			N/A	N/A
C - A12 South	4.53	0.03	0.31	5.25	21.37			N/A	N/A
D - B1079 East	1.87	0.03	0.29	1.87	7.26			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.44	0.03	0.27	3.44	3.44			N/A	N/A
B - Grundisburgh Rd West	3.14	0.03	0.31	3.87	15.01			N/A	N/A
C - A12 South	4.70	0.03	0.28	4.70	10.63			N/A	N/A
D - B1079 East	1.96	0.03	0.29	1.96	8.40			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.64	0.08	1.08	3.62	4.97			N/A	N/A
B - Grundisburgh Rd West	1.02	0.05	0.46	2.38	3.63			N/A	N/A
C - A12 South	1.88	0.05	0.69	4.84	7.42			N/A	N/A
D - B1079 East	0.71	0.05	0.56	1.10	1.67			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.04	0.43	2.50	3.90			N/A	N/A
B - Grundisburgh Rd West	0.57	0.03	0.32	1.19	2.50			N/A	N/A
C - A12 South	1.12	0.04	0.36	2.79	5.31			N/A	N/A
D - B1079 East	0.41	0.03	0.34	1.14	1.14			N/A	N/A

## 2034 Operational Led, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J27	A12 / B1079 Grundisburgh Road	Standard Roundabout	A, D, C, B	7.64	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)	Run automatically
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1733	100.000
B - Grundisburgh Rd West		ONE HOUR	✓	356	100.000
C - A12 South		ONE HOUR	✓	1459	100.000
D - B1079 East		ONE HOUR	✓	305	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	5	323	1298	107
	B - Grundisburgh Rd West	94	0	112	150
	C - A12 South	1233	146	0	80
	D - B1079 East	132	83	90	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - Grundisburgh Rd West	C - A12 South	D - B1079 East
From	A - A12 North	0	1	3	2
	B - Grundisburgh Rd West	3	0	0	0
	C - A12 South	3	1	0	4
	D - B1079 East	0	1	1	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.75	5.79	3.0	6.7	A	1590	2385
B - Grundisburgh Rd West	0.54	10.76	1.2	4.4	B	326	490
C - A12 South	0.79	8.22	3.6	11.7	A	1339	2009
D - B1079 East	0.52	11.81	1.1	4.8	B	280	419

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1304	326	256	2617	0.498	1301	1098	0.0	1.0	2.726	A
B - Grundisburgh Rd West	268	67	1088	1014	0.264	266	414	0.0	0.4	4.809	A
C - A12 South	1099	275	407	2183	0.503	1095	1125	0.0	1.0	3.294	A
D - B1079 East	229	57	1304	997	0.230	228	253	0.0	0.3	4.674	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1558	389	307	2580	0.604	1556	1313	1.0	1.5	3.505	A
B - Grundisburgh Rd West	320	80	1301	893	0.358	319	495	0.4	0.6	6.264	A
C - A12 South	1312	328	487	2125	0.617	1309	1346	1.0	1.6	4.404	A
D - B1079 East	274	68	1560	847	0.323	273	302	0.3	0.5	6.264	A

## 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1908	477	374	2530	0.754	1902	1604	1.5	3.0	5.673	A
B - Grundisburgh Rd West	392	98	1589	730	0.536	389	605	0.6	1.1	10.490	B
C - A12 South	1607	402	595	2046	0.785	1599	1645	1.6	3.5	7.926	A
D - B1079 East	336	84	1907	644	0.521	333	369	0.5	1.1	11.512	B

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1908	477	376	2529	0.754	1908	1611	3.0	3.0	5.789	A
B - Grundisburgh Rd West	392	98	1596	726	0.540	392	607	1.1	1.2	10.760	B
C - A12 South	1607	402	597	2044	0.786	1606	1651	3.5	3.6	8.217	A
D - B1079 East	336	84	1913	640	0.524	335	371	1.1	1.1	11.811	B

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1558	389	310	2578	0.604	1564	1324	3.0	1.5	3.567	A
B - Grundisburgh Rd West	320	80	1312	887	0.361	322	499	1.2	0.6	6.399	A
C - A12 South	1312	328	491	2122	0.618	1320	1354	3.6	1.6	4.529	A
D - B1079 East	274	68	1568	842	0.325	276	305	1.1	0.5	6.389	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1304	326	258	2616	0.499	1307	1105	1.5	1.0	2.753	A
B - Grundisburgh Rd West	268	67	1094	1010	0.265	269	416	0.6	0.4	4.861	A
C - A12 South	1099	275	409	2182	0.504	1101	1131	1.6	1.0	3.341	A
D - B1079 East	229	57	1310	994	0.231	230	254	0.5	0.3	4.719	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.55	1.00	1.40	1.45			N/A	N/A
B - Grundisburgh Rd West	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - A12 South	1.01	0.55	1.00	1.40	1.45			N/A	N/A
D - B1079 East	0.30	0.00	0.00	0.30	0.30			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.51	0.04	0.42	3.94	6.65			N/A	N/A
B - Grundisburgh Rd West	0.55	0.06	0.67	1.33	1.42			N/A	N/A
C - A12 South	1.59	0.04	0.44	4.20	6.96			N/A	N/A
D - B1079 East	0.47	0.04	0.40	1.23	1.36			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.99	0.03	0.27	2.99	4.28			N/A	N/A
B - Grundisburgh Rd West	1.13	0.03	0.26	1.13	1.13			N/A	N/A
C - A12 South	3.52	0.03	0.29	3.52	11.68			N/A	N/A
D - B1079 East	1.06	0.03	0.26	1.06	1.06			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	3.03	0.03	0.26	3.03	3.03			N/A	N/A
B - Grundisburgh Rd West	1.15	0.03	0.28	1.15	4.39			N/A	N/A
C - A12 South	3.60	0.03	0.27	3.60	3.60			N/A	N/A
D - B1079 East	1.08	0.03	0.29	1.46	4.81			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.54	0.09	1.17	3.00	4.04			N/A	N/A
B - Grundisburgh Rd West	0.57	0.06	0.65	1.33	1.42			N/A	N/A
C - A12 South	1.64	0.07	0.96	3.79	5.42			N/A	N/A
D - B1079 East	0.49	0.04	0.43	1.26	1.38			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.00	0.05	0.49	2.21	3.29			N/A	N/A
B - Grundisburgh Rd West	0.36	0.03	0.32	1.02	1.26			N/A	N/A
C - A12 South	1.02	0.04	0.41	2.54	4.15			N/A	N/A
D - B1079 East	0.30	0.03	0.28	0.50	1.00			N/A	N/A

<b>Junctions 9</b>
<b>ARCADY 9 - Roundabout Module</b>
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Filename: 2020.07.27\_J28\_Model\_CV\_SENS v16.j9  
 Path: C:\Users\UKVXG007\Desktop\SZC\v16a No FI Sensitivity\J28\_sens\Model  
 Report generation date: 17/12/2020 18:09:04

- »2019 Base Year, 6-7 AM
- »2019 Base Year, 7-8 AM
- »2019 Base Year, 8-9 AM
- »2019 Base Year, 3-4 PM
- »2019 Base Year, 5-6 PM
- »2023 Reference Case, 6-7 AM
- »2023 Reference Case, 7-8 AM
- »2023 Reference Case, 8-9 AM
- »2023 Reference Case, 3-4 PM
- »2023 Reference Case, 5-6 PM
- »2023 Early Years, 6-7 AM
- »2023 Early Years, 7-8 AM
- »2023 Early Years, 8-9 AM
- »2023 Early Years, 3-4 PM
- »2023 Early Years, 5-6 PM
- »2028 Reference Case, 6-7 AM
- »2028 Reference Case, 7-8 AM
- »2028 Reference Case, 8-9 AM
- »2028 Reference Case, 3-4 PM
- »2028 Reference Case, 5-6 PM
- »2028 Peak Construction, 6-7 AM
- »2028 Peak Construction, 7-8 AM
- »2028 Peak Construction, 8-9 AM
- »2028 Peak Construction, 3-4 PM
- »2028 Peak Construction, 5-6 PM
- »2034 Reference Case, 6-7 AM
- »2034 Reference Case, 7-8 AM
- »2034 Reference Case, 8-9 AM
- »2034 Reference Case, 3-4 PM
- »2034 Reference Case, 5-6 PM
- »2034 Operational Led, 6-7 AM
- »2034 Operational Led, 7-8 AM
- »2034 Operational Led, 8-9 AM
- »2034 Operational Led, 3-4 PM
- »2034 Operational Led, 5-6 PM

**Summary of junction performance**

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
<b>2019 Base Year</b>																									
A - A12 North	0.4	1.4	2.39	0.26	A	1.4	1.7	4.78	0.58	A	5.1	25.5	13.66	0.84	B	1.5	2.0	5.20	0.61	A	1.0	1.5	4.01	0.51	A
B - A12 South West	0.4	1.3	2.28	0.29	A	2.2	4.6	5.39	0.69	A	3.6	11.2	7.86	0.79	A	3.8	12.1	7.85	0.79	A	3.4	8.3	6.91	0.78	A
C - A1152 East	0.2	0.5	2.65	0.19	A	1.2	1.5	5.53	0.55	A	2.9	10.9	11.61	0.75	B	1.4	1.6	6.39	0.59	A	1.1	1.4	5.00	0.53	A
<b>2023 Reference Case</b>																									
A - A12 North	0.4	1.5	2.42	0.27	A	1.6	2.0	5.22	0.61	A	6.0	30.9	16.12	0.87	C	1.7	2.5	5.70	0.64	A	1.3	1.5	4.55	0.56	A
B - A12 South West	0.4	1.7	2.32	0.31	A	2.7	5.8	6.18	0.73	A	4.6	20.0	9.72	0.83	A	4.0	14.6	8.37	0.80	A	3.7	11.1	7.50	0.79	A
C - A1152 East	0.3	0.8	2.70	0.20	A	1.3	1.5	5.93	0.57	A	3.5	15.7	13.58	0.78	B	1.6	1.9	6.96	0.62	A	1.3	1.5	5.62	0.57	A
<b>2023 Early Years</b>																									
A - A12 North	0.4	1.0	2.43	0.28	A	1.6	2.3	5.41	0.62	A	6.0	30.6	16.14	0.86	C	2.0	3.1	6.35	0.67	A	1.7	2.6	5.69	0.64	A
B - A12 South West	0.6	2.7	2.59	0.37	A	6.1	30.8	12.45	0.86	B	6.9	35.8	14.37	0.88	B	4.5	18.4	9.27	0.82	A	3.9	12.5	7.79	0.80	A
C - A1152 East	0.3	0.9	2.72	0.21	A	1.4	1.6	6.20	0.59	A	3.7	17.0	14.21	0.79	B	1.8	2.1	7.55	0.64	A	1.5	1.6	6.38	0.60	A
<b>2028 Reference Case</b>																									
A - A12 North	0.4	1.2	2.46	0.28	A	1.7	2.6	5.63	0.64	A	8.3	44.6	21.86	0.90	C	2.0	3.3	6.32	0.67	A	1.4	1.8	4.91	0.59	A
B - A12 South West	0.5	1.9	2.35	0.32	A	3.2	7.2	6.98	0.76	A	5.7	28.4	11.73	0.86	B	4.8	21.0	9.68	0.83	A	4.0	13.8	7.99	0.80	A
C - A1152 East	0.3	0.9	2.73	0.21	A	1.4	1.5	6.16	0.59	A	3.5	15.9	14.07	0.79	B	1.9	2.6	7.95	0.66	A	1.5	1.7	6.18	0.60	A
<b>2028 Peak Construction</b>																									
A - A12 North	0.4	1.3	2.48	0.29	A	1.8	2.7	5.73	0.64	A	8.7	47.1	22.58	0.91	C	2.6	5.6	7.70	0.73	A	1.6	2.3	5.48	0.62	A
B - A12 South West	0.7	2.3	2.80	0.42	A	5.9	29.3	11.95	0.86	B	7.2	37.4	14.90	0.89	B	4.6	19.9	9.64	0.83	A	3.9	12.6	7.81	0.80	A
C - A1152 East	0.3	0.9	2.74	0.21	A	1.4	1.6	6.24	0.59	A	3.7	17.1	14.80	0.80	B	2.3	5.7	9.54	0.70	A	1.6	1.9	6.74	0.62	A
<b>2034 Reference Case</b>																									
A - A12 North	0.3	1.4	2.40	0.26	A	1.3	1.5	4.76	0.57	A	4.8	23.3	13.29	0.83	B	1.6	2.2	5.26	0.62	A	1.1	1.5	4.07	0.53	A
B - A12 South West	0.5	2.3	2.45	0.34	A	3.8	13.0	8.16	0.80	A	4.6	19.4	9.40	0.83	A	4.3	16.6	8.81	0.81	A	3.4	8.1	6.92	0.77	A
C - A1152 East	0.4	1.6	3.06	0.30	A	1.9	2.6	7.15	0.66	A	3.6	16.0	13.47	0.79	B	2.9	9.9	10.36	0.74	B	3.4	13.8	10.83	0.78	B
<b>2034 Operational Led</b>																									
A - A12 North	0.3	1.4	2.40	0.26	A	1.3	1.5	4.76	0.57	A	5.1	25.5	14.27	0.84	B	1.6	2.2	5.25	0.62	A	1.1	1.5	4.09	0.53	A
B - A12 South West	0.5	2.3	2.45	0.34	A	3.9	13.6	8.31	0.80	A	5.7	27.7	11.32	0.86	B	4.3	16.9	8.87	0.82	A	3.4	8.7	7.04	0.78	A
C - A1152 East	0.4	1.6	3.06	0.30	A	1.9	2.8	7.28	0.66	A	4.0	19.5	14.92	0.81	B	2.9	10.1	10.42	0.75	B	3.4	13.6	10.79	0.78	B

*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.

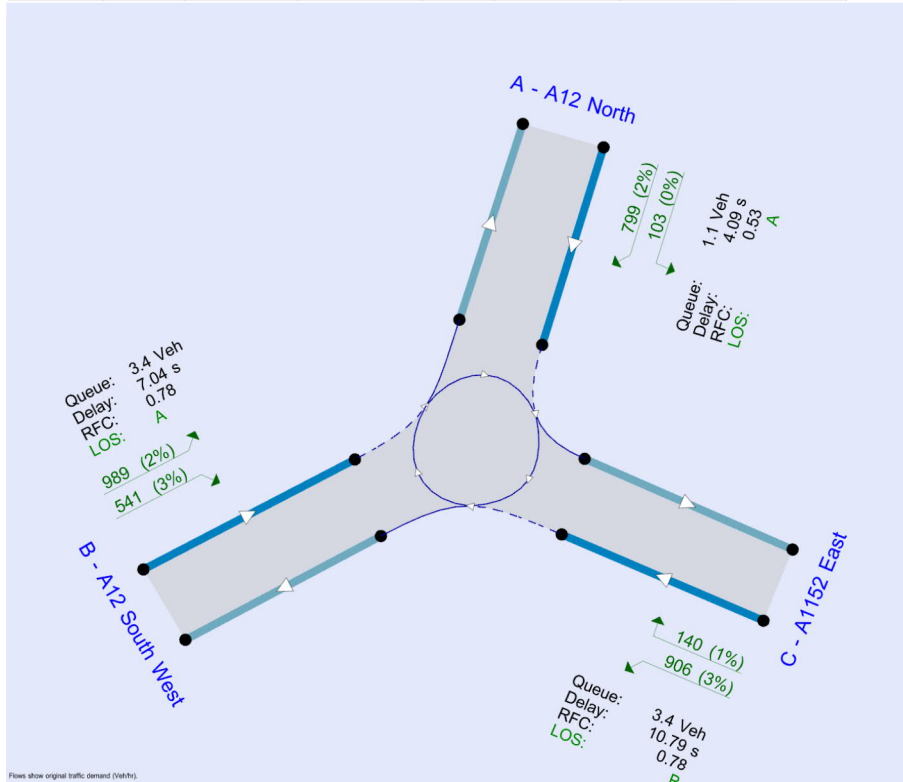
**File summary**

**File Description**

Title	A12 / A1152 Woods Lane
Location	52° 6'21.15"N, 1°18'34.71"E
Site number	28
Date	01/04/2019
Version	
Status	Skeleton Model
Identifier	
Client	
Jobnumber	
Enumerator	JV
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	mph	Veh	Veh	perHour	s	-Min	perMin



Flows show original traffic demand (Veh/hr).  
The junction diagram reflects the last run of Junctions.

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queuing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

**Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

							✓
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

#### Analysis Set Details

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

## 2019 Base Year, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.40	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description
A	A12 North	
B	A12 South West	
C	A1152 East	

#### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	F - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A12 North	3.70	8.20	71.5	22.2	64.9	24.0	
B - A12 South West	7.70	8.10	0.9	20.6	64.9	9.0	
C - A1152 East	3.10	8.40	25.9	31.8	64.9	38.0	

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A12 North	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	50
B - A12 South West	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	-100
C - A1152 East	Direct	Please refer column "V" in "modelled vs Observed" worksheet in "Queue validation" spreadsheet	200

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.638	2364
B - A12 South West	0.691	2460
C - A1152 East	0.559	2091

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

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	483	100.000
B - A12 South West		ONE HOUR	✓	574	100.000
C - A1152 East		ONE HOUR	✓	294	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	456	27
	B - A12 South West	355	23	196
	C - A1152 East	37	257	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	8	7
	B - A12 South West	10	26	7
	C - A1152 East	11	5	0



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.26	2.39	0.4	1.4	A	443	665
B - A12 South West	0.29	2.28	0.4	1.3	A	527	790
C - A1152 East	0.19	2.65	0.2	0.5	A	270	405

### Main Results for each time segment

#### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	364	91	165	2089	0.174	363	294	0.0	0.2	2.084	A
B - A12 South West	432	108	28	2219	0.195	431	553	0.0	0.2	2.013	A
C - A1152 East	221	55	360	1776	0.125	221	168	0.0	0.1	2.314	A

#### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	434	109	197	2068	0.210	434	352	0.2	0.3	2.202	A
B - A12 South West	516	129	33	2215	0.233	516	661	0.2	0.3	2.118	A
C - A1152 East	264	66	430	1736	0.152	264	200	0.1	0.2	2.446	A

#### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	532	133	241	2040	0.261	531	431	0.3	0.4	2.386	A
B - A12 South West	632	158	41	2210	0.286	632	810	0.3	0.4	2.281	A
C - A1152 East	324	81	527	1680	0.193	323	245	0.2	0.2	2.654	A

#### 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	532	133	241	2040	0.261	532	432	0.4	0.4	2.386	A
B - A12 South West	632	158	41	2210	0.286	632	810	0.4	0.4	2.281	A
C - A1152 East	324	81	527	1680	0.193	324	246	0.2	0.2	2.654	A

#### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	434	109	197	2068	0.210	435	353	0.4	0.3	2.203	A
B - A12 South West	516	129	33	2215	0.233	516	662	0.4	0.3	2.119	A
C - A1152 East	264	66	431	1735	0.152	265	201	0.2	0.2	2.449	A

#### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	364	91	165	2089	0.174	364	295	0.3	0.2	2.086	A
B - A12 South West	432	108	28	2219	0.195	432	554	0.3	0.2	2.017	A
C - A1152 East	221	55	361	1776	0.125	221	168	0.2	0.1	2.316	A

### Queue Variation Results for each time segment

#### 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - A12 South West	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A1152 East	0.14	0.00	0.00	0.14	0.14			N/A	N/A

#### 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.18	0.00	0.00	0.18	0.18			N/A	N/A

#### 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.40	0.03	0.25	0.45	0.48			N/A	N/A
C - A1152 East	0.24	0.03	0.25	0.46	0.48			N/A	N/A

#### 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.03	0.33	1.16	1.39			N/A	N/A
B - A12 South West	0.40	0.03	0.33	1.29	1.29			N/A	N/A
C - A1152 East	0.24	0.03	0.26	0.46	0.49			N/A	N/A

#### 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.18	0.00	0.00	0.18	0.18			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - A12 South West	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - A1152 East	0.14	0.00	0.00	0.14	0.14			N/A	N/A

## 2019 Base Year, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	5.23	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)	Run automatically
D2	2019 Base Year	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	954	100.000
B - A12 South West		ONE HOUR	✓	1375	100.000
C - A1152 East		ONE HOUR	✓	723	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	888	66
	B - A12 South West	745	45	585
	C - A1152 East	118	605	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	5	5
	B - A12 South West	10	13	6
	C - A1152 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.58	4.78	1.4	1.7	A	875	1313
B - A12 South West	0.69	5.39	2.2	4.6	A	1262	1893
C - A1152 East	0.55	5.53	1.2	1.5	A	663	995

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	718	180	473	1947	0.369	716	647	0.0	0.6	2.918	A
B - A12 South West	1035	259	89	2209	0.469	1032	1154	0.0	0.9	3.049	A
C - A1152 East	544	136	700	1634	0.333	542	488	0.0	0.5	3.292	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	858	214	566	1887	0.455	857	775	0.6	0.8	3.491	A
B - A12 South West	1236	309	106	2198	0.562	1235	1381	0.9	1.3	3.731	A
C - A1152 East	650	162	838	1555	0.418	649	584	0.5	0.7	3.971	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1050	263	692	1805	0.582	1048	948	0.8	1.4	4.746	A
B - A12 South West	1514	378	130	2182	0.694	1510	1690	1.3	2.2	5.329	A
C - A1152 East	796	199	1025	1448	0.550	794	715	0.7	1.2	5.491	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1050	263	694	1804	0.582	1050	950	1.4	1.4	4.779	A
B - A12 South West	1514	378	130	2182	0.694	1514	1693	2.2	2.2	5.387	A
C - A1152 East	796	199	1027	1446	0.550	796	717	1.2	1.2	5.534	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	858	214	568	1885	0.455	860	778	1.4	0.8	3.517	A
B - A12 South West	1236	309	106	2197	0.563	1240	1386	2.2	1.3	3.777	A
C - A1152 East	650	162	841	1553	0.418	652	587	1.2	0.7	4.004	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	718	180	475	1946	0.369	719	651	0.8	0.6	2.938	A
B - A12 South West	1035	259	89	2209	0.469	1037	1160	1.3	0.9	3.075	A
C - A1152 East	544	136	703	1632	0.334	545	491	0.7	0.5	3.316	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.58	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	0.88	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.50	0.00	0.00	0.50	0.50			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.83	0.07	0.78	1.27	1.73			N/A	N/A
B - A12 South West	1.27	0.05	0.51	3.02	4.63			N/A	N/A
C - A1152 East	0.71	0.08	0.79	1.40	1.47			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.38	0.03	0.26	1.38	1.38			N/A	N/A
B - A12 South West	2.22	0.03	0.27	2.22	2.22			N/A	N/A
C - A1152 East	1.21	0.03	0.26	1.21	1.21			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.39	0.03	0.26	1.39	1.39			N/A	N/A
B - A12 South West	2.24	0.03	0.26	2.24	2.24			N/A	N/A
C - A1152 East	1.22	0.03	0.27	1.22	1.37			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.84	0.37	0.97	1.41	1.46			N/A	N/A
B - A12 South West	1.30	0.13	1.15	2.07	2.74			N/A	N/A
C - A1152 East	0.72	0.23	0.94	1.39	1.44			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.59	0.06	0.67	1.34	1.42			N/A	N/A
B - A12 South West	0.89	0.06	0.71	1.64	2.12			N/A	N/A
C - A1152 East	0.50	0.05	0.46	1.28	1.39			N/A	N/A

## 2019 Base Year, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	10.71	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)	Run automatically
D3	2019 Base Year	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1262	100.000
B - A12 South West		ONE HOUR	✓	1529	100.000
C - A1152 East		ONE HOUR	✓	837	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	1	1113	148
	B - A12 South West	701	67	761
	C - A1152 East	159	677	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	5	5
	B - A12 South West	10	16	7
	C - A1152 East	6	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.84	13.66	5.1	25.5	B	1158	1737
B - A12 South West	0.79	7.86	3.6	11.2	A	1403	2105
C - A1152 East	0.75	11.61	2.9	10.9	B	768	1152

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	950	238	622	1840	0.516	946	646	0.0	1.1	4.008	A
B - A12 South West	1151	288	121	2178	0.528	1147	1392	0.0	1.1	3.475	A
C - A1152 East	630	158	885	1459	0.432	627	682	0.0	0.8	4.313	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1135	284	744	1760	0.645	1132	773	1.1	1.8	5.702	A
B - A12 South West	1375	344	144	2163	0.636	1372	1665	1.1	1.7	4.541	A
C - A1152 East	752	188	1059	1363	0.552	751	817	0.8	1.2	5.862	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1389	347	909	1652	0.841	1377	943	1.8	4.9	12.558	B
B - A12 South West	1683	421	176	2141	0.786	1676	2028	1.7	3.5	7.621	A
C - A1152 East	922	230	1289	1236	0.746	915	997	1.2	2.8	11.014	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1389	347	913	1650	0.842	1389	948	4.9	5.1	13.664	B
B - A12 South West	1683	421	177	2141	0.786	1683	2043	3.5	3.6	7.858	A
C - A1152 East	922	230	1299	1230	0.749	921	1002	2.8	2.9	11.615	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1135	284	749	1757	0.646	1147	779	5.1	1.9	6.032	A
B - A12 South West	1375	344	146	2161	0.636	1382	1686	3.6	1.8	4.662	A
C - A1152 East	752	188	1073	1355	0.555	759	823	2.9	1.3	6.107	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	950	238	626	1837	0.517	953	650	1.9	1.1	4.086	A
B - A12 South West	1151	288	122	2178	0.529	1154	1403	1.8	1.1	3.523	A
C - A1152 East	630	158	892	1455	0.433	632	687	1.3	0.8	4.386	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.06	0.55	1.01	1.42	1.47			N/A	N/A
B - A12 South West	1.11	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.75	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.78	0.04	0.44	4.78	7.96			N/A	N/A
B - A12 South West	1.72	0.04	0.44	4.59	7.58			N/A	N/A
C - A1152 East	1.22	0.05	0.61	2.80	4.09			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	4.86	0.03	0.33	8.41	25.47			N/A	N/A
B - A12 South West	3.54	0.03	0.29	3.54	11.18			N/A	N/A
C - A1152 East	2.80	0.03	0.29	2.80	10.94			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.09	0.03	0.29	5.09	17.18			N/A	N/A
B - A12 South West	3.61	0.03	0.27	3.61	3.61			N/A	N/A
C - A1152 East	2.90	0.03	0.28	2.90	6.09			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.86	0.05	0.49	4.89	7.76			N/A	N/A
B - A12 South West	1.77	0.07	1.00	4.16	5.95			N/A	N/A
C - A1152 East	1.27	0.06	0.81	2.77	3.90			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.08	0.03	0.34	2.56	5.33			N/A	N/A
B - A12 South West	1.13	0.04	0.42	2.82	4.61			N/A	N/A
C - A1152 East	0.77	0.04	0.38	1.79	2.93			N/A	N/A

## 2019 Base Year, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.75	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)	Run automatically
D4	2019 Base Year	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	972	100.000
B - A12 South West		ONE HOUR	✓	1597	100.000
C - A1152 East		ONE HOUR	✓	741	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	863	107
	B - A12 South West	943	96	558
	C - A1152 East	129	607	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	3
	B - A12 South West	6	8	6
	C - A1152 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.61	5.20	1.5	2.0	A	892	1338
B - A12 South West	0.79	7.85	3.8	12.1	A	1465	2198
C - A1152 East	0.59	6.39	1.4	1.6	A	680	1020

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	732	183	494	1910	0.383	729	805	0.0	0.6	3.042	A
B - A12 South West	1202	301	102	2248	0.535	1198	1175	0.0	1.1	3.415	A
C - A1152 East	558	139	721	1570	0.355	556	503	0.0	0.5	3.543	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	874	218	591	1848	0.473	873	964	0.6	0.9	3.688	A
B - A12 South West	1436	359	122	2234	0.643	1433	1406	1.1	1.8	4.479	A
C - A1152 East	666	167	863	1490	0.447	665	601	0.5	0.8	4.361	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1070	268	722	1764	0.607	1068	1178	0.9	1.5	5.151	A
B - A12 South West	1758	440	149	2216	0.794	1751	1719	1.8	3.7	7.613	A
C - A1152 East	816	204	1055	1381	0.591	813	735	0.8	1.4	6.316	A

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1070	268	725	1762	0.607	1070	1182	1.5	1.5	5.202	A
B - A12 South West	1758	440	150	2216	0.794	1758	1724	3.7	3.8	7.853	A
C - A1152 East	816	204	1058	1379	0.591	816	738	1.4	1.4	6.387	A

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	874	218	596	1845	0.474	876	971	1.5	0.9	3.727	A
B - A12 South West	1436	359	123	2234	0.643	1443	1413	3.8	1.8	4.598	A
C - A1152 East	666	167	867	1487	0.448	669	605	1.4	0.8	4.411	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	732	183	497	1908	0.383	733	810	0.9	0.6	3.065	A
B - A12 South West	1202	301	103	2247	0.535	1205	1181	1.8	1.2	3.461	A
C - A1152 East	558	139	725	1568	0.356	559	505	0.8	0.6	3.574	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.62	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.14	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.89	0.07	0.77	1.56	1.95			N/A	N/A
B - A12 South West	1.77	0.04	0.44	4.76	7.97			N/A	N/A
C - A1152 East	0.80	0.07	0.79	1.04	1.58			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.52	0.03	0.26	1.52	1.52			N/A	N/A
B - A12 South West	3.69	0.03	0.29	3.69	12.11			N/A	N/A
C - A1152 East	1.42	0.03	0.26	1.42	1.42			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.53	0.03	0.26	1.53	1.53			N/A	N/A
B - A12 South West	3.77	0.03	0.27	3.77	3.77			N/A	N/A
C - A1152 East	1.43	0.03	0.27	1.43	1.43			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.91	0.25	0.98	1.17	1.17			N/A	N/A
B - A12 South West	1.82	0.07	0.99	4.36	6.27			N/A	N/A
C - A1152 East	0.82	0.16	0.92	1.42	1.48			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.63	0.06	0.67	1.36	1.44			N/A	N/A
B - A12 South West	1.16	0.04	0.42	2.91	4.82			N/A	N/A
C - A1152 East	0.56	0.05	0.51	1.32	1.42			N/A	N/A



## 2019 Base Year, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	5.71	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)	Run automatically
D5	2019 Base Year	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	833	100.000
B - A12 South West		ONE HOUR	✓	1629	100.000
C - A1152 East		ONE HOUR	✓	730	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	757	74
	B - A12 South West	924	90	615
	C - A1152 East	131	594	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	3	1
	B - A12 South West	2	2	1
	C - A1152 East	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.51	4.01	1.0	1.5	A	764	1147
B - A12 South West	0.78	6.91	3.4	8.3	A	1495	2242
C - A1152 East	0.53	5.00	1.1	1.4	A	670	1005

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	627	157	533	1972	0.318	625	793	0.0	0.5	2.670	A
B - A12 South West	1226	307	104	2346	0.523	1222	1081	0.0	1.1	3.190	A
C - A1152 East	560	137	637	1691	0.325	548	521	0.0	0.5	3.142	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	749	187	637	1906	0.393	748	949	0.5	0.6	3.108	A
B - A12 South West	1464	366	124	2332	0.628	1462	1294	1.1	1.7	4.126	A
C - A1152 East	656	164	762	1621	0.405	655	623	0.5	0.7	3.724	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	917	229	779	1816	0.505	916	1160	0.6	1.0	3.990	A
B - A12 South West	1794	448	152	2314	0.775	1787	1583	1.7	3.3	6.749	A
C - A1152 East	804	201	933	1525	0.527	802	761	0.7	1.1	4.966	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	917	229	782	1815	0.505	917	1164	1.0	1.0	4.010	A
B - A12 South West	1794	448	152	2313	0.775	1793	1587	3.3	3.4	6.914	A
C - A1152 East	804	201	935	1524	0.527	804	764	1.1	1.1	4.966	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	749	187	641	1903	0.393	750	954	1.0	0.7	3.127	A
B - A12 South West	1464	366	124	2332	0.628	1471	1299	3.4	1.7	4.214	A
C - A1152 East	656	164	765	1620	0.405	658	627	1.1	0.7	3.752	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	627	157	536	1970	0.318	628	797	0.7	0.5	2.685	A
B - A12 South West	1226	307	104	2346	0.523	1229	1086	1.7	1.1	3.231	A
C - A1152 East	550	137	640	1690	0.325	550	523	0.7	0.5	3.163	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.46	0.00	0.00	0.46	0.46			N/A	N/A
B - A12 South West	1.09	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.48	0.00	0.00	0.48	0.48			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.64	0.08	0.78	1.36	1.43			N/A	N/A
B - A12 South West	1.67	0.04	0.44	4.44	7.39			N/A	N/A
C - A1152 East	0.68	0.08	0.79	1.37	1.44			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.01	0.03	0.26	1.01	1.01			N/A	N/A
B - A12 South West	3.34	0.03	0.28	3.34	8.27			N/A	N/A
C - A1152 East	1.10	0.03	0.26	1.10	1.10			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.03	0.27	1.02	1.30			N/A	N/A
B - A12 South West	3.39	0.03	0.27	3.39	3.39			N/A	N/A
C - A1152 East	1.11	0.03	0.27	1.11	1.40			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.71	0.08	1.09	3.82	5.34			N/A	N/A
C - A1152 East	0.69	0.33	0.96	1.39	1.45			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.47	0.00	0.00	0.47	0.47			N/A	N/A
B - A12 South West	1.10	0.04	0.45	2.69	4.19			N/A	N/A
C - A1152 East	0.48	0.04	0.43	1.26	1.38			N/A	N/A

## 2023 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.43	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)	Run automatically
D6	2023 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	506	100.000
B - A12 South West		ONE HOUR	✓	624	100.000
C - A1152 East		ONE HOUR	✓	310	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	477	28
	B - A12 South West	399	23	202
	C - A1152 East	40	271	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	8	26	7
	C - A1152 East	9	4	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.27	2.42	0.4	1.5	A	464	696
B - A12 South West	0.31	2.32	0.4	1.7	A	572	859
C - A1152 East	0.20	2.70	0.3	0.8	A	285	427

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	381	95	169	2095	0.182	380	329	0.0	0.2	2.097	A
B - A12 South West	470	117	30	2246	0.209	469	579	0.0	0.3	2.024	A
C - A1152 East	234	58	376	1777	0.132	233	173	0.0	0.2	2.331	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	454	114	202	2074	0.219	454	394	0.2	0.3	2.222	A
B - A12 South West	561	140	36	2242	0.250	560	693	0.3	0.3	2.140	A
C - A1152 East	279	70	449	1735	0.161	279	207	0.2	0.2	2.472	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	557	139	248	2045	0.272	556	482	0.3	0.4	2.419	A
B - A12 South West	687	172	44	2237	0.307	686	848	0.3	0.4	2.322	A
C - A1152 East	342	85	550	1677	0.204	342	254	0.2	0.3	2.696	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	557	139	248	2044	0.272	557	483	0.4	0.4	2.419	A
B - A12 South West	687	172	44	2237	0.307	687	849	0.4	0.4	2.322	A
C - A1152 East	342	85	551	1676	0.204	342	254	0.3	0.3	2.697	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	454	114	202	2074	0.219	455	394	0.4	0.3	2.223	A
B - A12 South West	561	140	36	2242	0.250	561	694	0.4	0.3	2.143	A
C - A1152 East	279	70	450	1734	0.161	279	207	0.3	0.2	2.474	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	381	95	170	2095	0.182	381	330	0.3	0.2	2.101	A
B - A12 South West	470	117	30	2246	0.209	470	581	0.3	0.3	2.026	A
C - A1152 East	234	58	377	1777	0.132	234	174	0.2	0.2	2.335	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A
B - A12 South West	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - A12 South West	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - A1152 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.44	0.03	0.25	0.45	0.48			N/A	N/A
C - A1152 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.37	0.03	0.33	1.22	1.47			N/A	N/A
B - A12 South West	0.44	0.03	0.32	1.38	1.73			N/A	N/A
C - A1152 East	0.26	0.03	0.27	0.48	0.77			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.28	0.00	0.00	0.28	0.28			N/A	N/A
B - A12 South West	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - A1152 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.22	0.00	0.00	0.22	0.22			N/A	N/A
B - A12 South West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## 2023 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	5.83	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)	Run automatically
D7	2023 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	982	100.000
B - A12 South West		ONE HOUR	✓	1442	100.000
C - A1152 East		ONE HOUR	✓	743	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	913	69
	B - A12 South West	795	45	602
	C - A1152 East	123	620	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	6	4
	B - A12 South West	11	13	6
	C - A1152 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.61	5.22	1.6	2.0	A	901	1351
B - A12 South West	0.73	6.18	2.7	5.8	A	1323	1984
C - A1152 East	0.57	5.93	1.3	1.5	A	682	1023

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	739	185	485	1916	0.386	737	688	0.0	0.6	3.045	A
B - A12 South West	1085	271	92	2198	0.494	1082	1184	0.0	1.0	3.215	A
C - A1152 East	559	140	719	1620	0.345	557	503	0.0	0.5	3.380	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	883	221	581	1855	0.476	881	824	0.6	0.9	3.695	A
B - A12 South West	1296	324	110	2186	0.593	1294	1417	1.0	1.4	4.029	A
C - A1152 East	668	167	860	1538	0.434	667	602	0.5	0.8	4.130	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1081	270	710	1772	0.610	1078	1007	0.9	1.5	5.172	A
B - A12 South West	1587	397	135	2170	0.732	1582	1733	1.4	2.7	6.078	A
C - A1152 East	818	205	1052	1426	0.574	816	736	0.8	1.3	5.878	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1081	270	712	1771	0.610	1081	1010	1.5	1.6	5.219	A
B - A12 South West	1587	397	136	2170	0.732	1587	1737	2.7	2.7	6.177	A
C - A1152 East	818	205	1055	1425	0.574	818	739	1.3	1.3	5.933	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	883	221	584	1853	0.476	885	828	1.6	0.9	3.731	A
B - A12 South West	1296	324	111	2186	0.593	1301	1423	2.7	1.5	4.092	A
C - A1152 East	668	167	864	1536	0.435	670	605	1.3	0.8	4.170	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	739	185	488	1914	0.386	740	692	0.9	0.6	3.067	A
B - A12 South West	1085	271	93	2198	0.494	1087	1190	1.5	1.0	3.250	A
C - A1152 East	559	140	722	1618	0.346	560	506	0.8	0.5	3.409	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.62	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	0.97	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.52	0.52	1.00	1.40	1.45			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.90	0.07	0.77	1.61	1.99			N/A	N/A
B - A12 South West	1.44	0.05	0.47	3.68	5.76			N/A	N/A
C - A1152 East	0.76	0.08	0.79	1.32	1.32			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.54	0.03	0.26	1.54	1.54			N/A	N/A
B - A12 South West	2.66	0.03	0.27	2.66	3.61			N/A	N/A
C - A1152 East	1.33	0.03	0.26	1.33	1.33			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.56	0.03	0.26	1.56	1.56			N/A	N/A
B - A12 South West	2.69	0.03	0.26	2.69	2.69			N/A	N/A
C - A1152 East	1.34	0.03	0.27	1.34	1.34			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.24	0.98	1.28	1.28			N/A	N/A
B - A12 South West	1.47	0.10	1.15	2.85	3.80			N/A	N/A
C - A1152 East	0.78	0.19	0.93	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.63	0.06	0.67	1.36	1.45			N/A	N/A
B - A12 South West	0.98	0.05	0.55	2.05	2.99			N/A	N/A
C - A1152 East	0.53	0.05	0.49	1.30	1.40			N/A	N/A

## 2023 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	12.76	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)	Run automatically
D8	2023 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1273	100.000
B - A12 South West		ONE HOUR	✓	1598	100.000
C - A1152 East		ONE HOUR	✓	870	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	1	1121	151
	B - A12 South West	751	67	780
	C - A1152 East	168	701	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	5
	B - A12 South West	11	16	7
	C - A1152 East	5	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.87	16.12	6.0	30.9	C	1168	1752
B - A12 South West	0.83	9.72	4.6	20.0	A	1467	2200
C - A1152 East	0.78	13.58	3.5	15.7	B	799	1198

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	958	240	636	1812	0.529	954	690	0.0	1.1	4.173	A
B - A12 South West	1203	301	128	2168	0.555	1198	1415	0.0	1.2	3.695	A
C - A1152 East	655	164	891	1454	0.451	652	699	0.0	0.8	4.469	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1144	286	761	1731	0.661	1141	826	1.1	1.9	6.065	A
B - A12 South West	1437	359	153	2151	0.668	1434	1693	1.2	2.0	4.996	A
C - A1152 East	782	196	1066	1357	0.577	780	836	0.8	1.3	6.225	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1401	350	929	1623	0.863	1386	1007	1.9	5.7	14.376	B
B - A12 South West	1760	440	186	2129	0.826	1750	2059	2.0	4.5	9.245	A
C - A1152 East	958	240	1295	1228	0.780	950	1020	1.3	3.3	12.611	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1401	350	934	1620	0.865	1400	1013	5.7	6.0	16.118	C
B - A12 South West	1760	440	188	2128	0.827	1759	2078	4.5	4.6	9.717	A
C - A1152 East	958	240	1307	1221	0.785	958	1026	3.3	3.5	13.583	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1144	286	768	1727	0.663	1160	834	6.0	2.0	6.528	A
B - A12 South West	1437	359	155	2150	0.668	1447	1719	4.6	2.0	5.196	A
C - A1152 East	782	196	1083	1347	0.581	791	845	3.5	1.4	6.569	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	958	240	640	1809	0.530	962	695	2.0	1.1	4.264	A
B - A12 South West	1203	301	129	2167	0.555	1206	1427	2.0	1.3	3.760	A
C - A1152 East	655	164	898	1450	0.452	658	704	1.4	0.8	4.555	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.55	1.04	1.32	1.32			N/A	N/A
B - A12 South West	1.24	0.56	1.08	1.24	1.62			N/A	N/A
C - A1152 East	0.81	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.91	0.04	0.44	5.16	8.74			N/A	N/A
B - A12 South West	1.98	0.04	0.43	5.38	9.16			N/A	N/A
C - A1152 East	1.34	0.05	0.51	3.27	4.94			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.65	0.04	0.36	12.45	30.90			N/A	N/A
B - A12 South West	4.50	0.03	0.30	4.50	19.98			N/A	N/A
C - A1152 East	3.34	0.03	0.31	3.78	15.66			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	6.01	0.03	0.30	6.01	25.61			N/A	N/A
B - A12 South West	4.63	0.03	0.28	4.63	7.72			N/A	N/A
C - A1152 East	3.51	0.03	0.28	3.51	10.08			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.00	0.05	0.46	5.42	8.88			N/A	N/A
B - A12 South West	2.05	0.06	0.78	5.31	8.03			N/A	N/A
C - A1152 East	1.41	0.05	0.67	3.39	4.98			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.14	0.03	0.33	2.49	5.74			N/A	N/A
B - A12 South West	1.26	0.04	0.38	3.22	5.88			N/A	N/A
C - A1152 East	0.83	0.04	0.36	1.95	3.64			N/A	N/A



## 2023 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.25	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)	Run automatically
D9	2023 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1001	100.000
B - A12 South West		ONE HOUR	✓	1608	100.000
C - A1152 East		ONE HOUR	✓	768	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	885	114
	B - A12 South West	934	96	578
	C - A1152 East	136	628	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	8	3
	B - A12 South West	7	8	6
	C - A1152 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.64	5.70	1.7	2.5	A	918	1377
B - A12 South West	0.80	8.37	4.0	14.6	A	1475	2213
C - A1152 East	0.62	6.96	1.6	1.9	A	705	1057

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	753	188	509	1884	0.400	751	804	0.0	0.7	3.171	A
B - A12 South West	1210	303	107	2233	0.542	1206	1206	0.0	1.2	3.490	A
C - A1152 East	578	145	737	1560	0.371	576	523	0.0	0.6	3.648	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	900	225	609	1821	0.494	898	962	0.7	1.0	3.899	A
B - A12 South West	1445	361	128	2219	0.651	1443	1444	1.2	1.8	4.624	A
C - A1152 East	691	173	882	1477	0.467	689	625	0.6	0.9	4.563	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1102	275	744	1735	0.635	1099	1174	1.0	1.7	5.629	A
B - A12 South West	1770	443	156	2200	0.805	1762	1765	1.8	3.9	8.071	A
C - A1152 East	846	211	1079	1365	0.620	843	764	0.9	1.6	6.859	A

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1102	275	747	1733	0.636	1102	1180	1.7	1.7	5.697	A
B - A12 South West	1770	443	157	2199	0.805	1770	1771	3.9	4.0	8.366	A
C - A1152 East	846	211	1082	1363	0.621	846	767	1.6	1.6	6.956	A

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	900	225	614	1818	0.495	903	969	1.7	1.0	3.948	A
B - A12 South West	1445	361	129	2218	0.652	1454	1451	4.0	1.9	4.761	A
C - A1152 East	691	173	887	1475	0.468	694	630	1.6	0.9	4.624	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	753	188	512	1882	0.400	755	809	1.0	0.7	3.199	A
B - A12 South West	1210	303	108	2232	0.542	1213	1213	1.9	1.2	3.541	A
C - A1152 East	578	145	741	1558	0.371	580	526	0.9	0.6	3.685	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.66	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.17	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.59	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.97	0.06	0.75	1.83	2.55			N/A	N/A
B - A12 South West	1.84	0.04	0.43	4.95	8.41			N/A	N/A
C - A1152 East	0.87	0.07	0.79	1.46	1.86			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.03	0.26	1.71	1.71			N/A	N/A
B - A12 South West	3.94	0.03	0.29	3.94	14.55			N/A	N/A
C - A1152 East	1.60	0.03	0.27	1.60	1.60			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.73	0.03	0.26	1.73	1.73			N/A	N/A
B - A12 South West	4.03	0.03	0.27	4.03	4.03			N/A	N/A
C - A1152 East	1.62	0.03	0.27	1.62	1.62			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.17	1.00	1.33	1.70			N/A	N/A
B - A12 South West	1.90	0.06	0.93	4.69	6.85			N/A	N/A
C - A1152 East	0.89	0.13	0.93	1.50	1.52			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.67	0.06	0.64	1.12	1.12			N/A	N/A
B - A12 South West	1.19	0.04	0.40	3.01	5.17			N/A	N/A
C - A1152 East	0.59	0.05	0.50	1.37	1.47			N/A	N/A

## 2023 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.26	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)	Run automatically
D10	2023 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	905	100.000
B - A12 South West		ONE HOUR	✓	1645	100.000
C - A1152 East		ONE HOUR	✓	763	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	820	83
	B - A12 South West	926	90	629
	C - A1152 East	140	618	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	4	1
	B - A12 South West	4	2	1
	C - A1152 East	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.56	4.55	1.3	1.5	A	830	1245
B - A12 South West	0.79	7.50	3.7	11.1	A	1509	2264
C - A1152 East	0.57	5.62	1.3	1.5	A	700	1050

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	681	170	543	1945	0.350	679	801	0.0	0.5	2.839	A
B - A12 South West	1238	310	110	2325	0.533	1234	1147	0.0	1.1	3.286	A
C - A1152 East	574	144	684	1663	0.345	572	538	0.0	0.5	3.296	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	813	203	650	1878	0.433	813	958	0.5	0.8	3.374	A
B - A12 South West	1479	370	132	2310	0.640	1476	1372	1.1	1.8	4.303	A
C - A1152 East	686	171	819	1586	0.432	685	643	0.5	0.8	3.989	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	996	249	794	1789	0.557	994	1171	0.8	1.2	4.521	A
B - A12 South West	1811	453	161	2290	0.791	1804	1679	1.8	3.6	7.283	A
C - A1152 East	840	210	1002	1482	0.567	838	786	0.8	1.3	5.567	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	996	249	797	1787	0.558	996	1175	1.2	1.3	4.554	A
B - A12 South West	1811	453	161	2290	0.791	1811	1683	3.6	3.7	7.499	A
C - A1152 East	840	210	1004	1481	0.567	840	789	1.3	1.3	5.615	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	813	203	654	1876	0.434	815	965	1.3	0.8	3.400	A
B - A12 South West	1479	370	132	2310	0.640	1486	1378	3.7	1.8	4.410	A
C - A1152 East	686	171	822	1584	0.433	688	647	1.3	0.8	4.024	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	681	170	546	1943	0.351	682	805	0.8	0.5	2.858	A
B - A12 South West	1238	310	111	2325	0.533	1241	1152	1.8	1.1	3.331	A
C - A1152 East	574	144	688	1661	0.346	575	541	0.8	0.5	3.320	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.54	0.54	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.13	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.52	0.52	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.76	0.08	0.78	1.33	1.33			N/A	N/A
B - A12 South West	1.76	0.04	0.43	4.71	7.94			N/A	N/A
C - A1152 East	0.76	0.08	0.79	1.25	1.25			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.24	0.03	0.26	1.24	1.24			N/A	N/A
B - A12 South West	3.64	0.03	0.28	3.64	11.12			N/A	N/A
C - A1152 East	1.29	0.03	0.26	1.29	1.29			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.25	0.03	0.27	1.25	1.25			N/A	N/A
B - A12 South West	3.71	0.03	0.27	3.71	3.71			N/A	N/A
C - A1152 East	1.30	0.03	0.27	1.30	1.30			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.50	0.97	1.40	1.45			N/A	N/A
B - A12 South West	1.80	0.07	1.03	4.24	6.03			N/A	N/A
C - A1152 East	0.77	0.22	0.94	1.39	1.45			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.54	0.06	0.61	1.32	1.41			N/A	N/A
B - A12 South West	1.15	0.04	0.42	2.86	4.69			N/A	N/A
C - A1152 East	0.53	0.05	0.51	1.30	1.40			N/A	N/A

## 2023 Early Years, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.56	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)	Run automatically
D11	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	516	100.000
B - A12 South West		ONE HOUR	✓	735	100.000
C - A1152 East		ONE HOUR	✓	314	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	487	29
	B - A12 South West	509	23	203
	C - A1152 East	41	273	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	11	26	7
	C - A1152 East	9	4	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.28	2.43	0.4	1.0	A	473	710
B - A12 South West	0.37	2.59	0.6	2.7	A	674	1011
C - A1152 East	0.21	2.72	0.3	0.9	A	289	433

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	388	97	170	2098	0.185	387	413	0.0	0.2	2.103	A
B - A12 South West	553	138	31	2208	0.251	552	588	0.0	0.3	2.171	A
C - A1152 East	237	59	383	1774	0.133	236	174	0.0	0.2	2.338	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	463	116	203	2076	0.223	463	494	0.2	0.3	2.231	A
B - A12 South West	661	165	37	2204	0.300	660	704	0.3	0.4	2.332	A
C - A1152 East	283	71	458	1731	0.163	282	208	0.2	0.2	2.484	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	568	142	248	2047	0.277	567	605	0.3	0.4	2.433	A
B - A12 South West	809	202	45	2198	0.368	808	862	0.4	0.6	2.589	A
C - A1152 East	346	87	561	1672	0.207	346	255	0.2	0.3	2.715	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	568	142	249	2047	0.277	568	606	0.4	0.4	2.433	A
B - A12 South West	809	202	45	2198	0.368	809	862	0.6	0.6	2.591	A
C - A1152 East	346	87	561	1672	0.207	346	255	0.3	0.3	2.715	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	463	116	203	2076	0.223	464	495	0.4	0.3	2.233	A
B - A12 South West	661	165	37	2204	0.300	661	705	0.6	0.4	2.336	A
C - A1152 East	283	71	459	1731	0.163	283	208	0.3	0.2	2.488	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	388	97	170	2097	0.185	388	414	0.3	0.2	2.108	A
B - A12 South West	553	138	31	2208	0.251	554	590	0.4	0.3	2.178	A
C - A1152 East	237	59	384	1774	0.133	237	174	0.2	0.2	2.344	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A12 South West	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - A12 South West	0.43	0.00	0.00	0.43	0.43			N/A	N/A
C - A1152 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.58	0.03	0.25	0.58	0.58			N/A	N/A
C - A1152 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.38	0.03	0.33	1.05	1.05			N/A	N/A
B - A12 South West	0.58	0.03	0.29	1.27	2.69			N/A	N/A
C - A1152 East	0.26	0.03	0.27	0.49	0.89			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - A12 South West	0.43	0.00	0.00	0.43	0.43			N/A	N/A
C - A1152 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A12 South West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## 2023 Early Years, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	9.11	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)	Run automatically
D12	2023 Early Years	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1000	100.000
B - A12 South West		ONE HOUR	✓	1666	100.000
C - A1152 East		ONE HOUR	✓	764	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	917	83
	B - A12 South West	1016	45	605
	C - A1152 East	126	638	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	4
	B - A12 South West	14	13	6
	C - A1152 East	3	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.62	5.41	1.6	2.3	A	917	1376
B - A12 South West	0.86	12.45	6.1	30.8	B	1528	2293
C - A1152 East	0.59	6.20	1.4	1.6	A	701	1052

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	753	188	487	1912	0.394	750	856	0.0	0.6	3.092	A
B - A12 South West	1254	314	95	2150	0.583	1248	1200	0.0	1.4	3.972	A
C - A1152 East	575	144	721	1618	0.355	573	516	0.0	0.5	3.436	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	899	225	583	1851	0.486	898	1025	0.6	0.9	3.772	A
B - A12 South West	1497	374	114	2138	0.700	1494	1436	1.4	2.3	5.560	A
C - A1152 East	687	172	863	1536	0.447	686	617	0.5	0.8	4.231	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1101	275	710	1769	0.622	1098	1249	0.9	1.6	5.343	A
B - A12 South West	1834	458	139	2122	0.864	1820	1756	2.3	5.8	11.425	B
C - A1152 East	841	210	1056	1423	0.591	839	752	0.8	1.4	6.132	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1101	275	715	1766	0.623	1101	1257	1.6	1.6	5.412	A
B - A12 South West	1834	458	139	2121	0.865	1833	1761	5.8	6.1	12.452	B
C - A1152 East	841	210	1059	1422	0.592	841	757	1.4	1.4	6.200	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	899	225	590	1846	0.487	901	1036	1.6	1.0	3.824	A
B - A12 South West	1497	374	114	2137	0.701	1512	1443	6.1	2.4	5.891	A
C - A1152 East	687	172	867	1533	0.448	689	624	1.4	0.8	4.277	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	753	188	491	1909	0.394	754	863	1.0	0.7	3.120	A
B - A12 South West	1254	314	95	2149	0.583	1258	1206	2.4	1.4	4.055	A
C - A1152 East	575	144	725	1616	0.356	576	519	0.8	0.6	3.464	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.39	0.58	1.27	1.73	1.88			N/A	N/A
C - A1152 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.94	0.06	0.76	1.73	2.31			N/A	N/A
B - A12 South West	2.29	0.04	0.43	6.28	10.88			N/A	N/A
C - A1152 East	0.80	0.07	0.79	1.07	1.60			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.62	0.03	0.26	1.62	1.62			N/A	N/A
B - A12 South West	5.84	0.03	0.33	10.40	30.84			N/A	N/A
C - A1152 East	1.42	0.03	0.26	1.42	1.42			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.64	0.03	0.26	1.64	1.64			N/A	N/A
B - A12 South West	6.09	0.03	0.29	6.09	19.78			N/A	N/A
C - A1152 East	1.44	0.03	0.27	1.44	1.44			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.96	0.21	0.99	1.07	1.55			N/A	N/A
B - A12 South West	2.39	0.05	0.50	6.53	10.52			N/A	N/A
C - A1152 East	0.82	0.17	0.93	1.42	1.48			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.06	0.66	1.38	1.47			N/A	N/A
B - A12 South West	1.42	0.03	0.35	3.46	7.17			N/A	N/A
C - A1152 East	0.56	0.05	0.52	1.32	1.42			N/A	N/A



## 2023 Early Years, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	14.91	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)	Run automatically
D13	2023 Early Years	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1266	100.000
B - A12 South West		ONE HOUR	✓	1640	100.000
C - A1152 East		ONE HOUR	✓	878	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 South West	C - A1152 East
A - A12 North	1	1114	151
B - A12 South West	806	67	768
C - A1152 East	184	694	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 South West	C - A1152 East
A - A12 North	0	8	5
B - A12 South West	18	16	7
C - A1152 East	5	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.86	16.14	6.0	30.6	C	1161	1742
B - A12 South West	0.88	14.37	6.9	35.8	B	1505	2258
C - A1152 East	0.79	14.21	3.7	17.0	B	806	1209

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	953	238	626	1799	0.530	948	742	0.0	1.1	4.211	A
B - A12 South West	1235	309	139	2093	0.590	1229	1404	0.0	1.4	4.139	A
C - A1152 East	661	165	885	1453	0.455	658	689	0.0	0.8	4.511	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1138	284	749	1720	0.661	1135	888	1.1	1.9	6.112	A
B - A12 South West	1475	369	166	2076	0.710	1471	1680	1.4	2.4	5.911	A
C - A1152 East	790	197	1059	1354	0.583	787	825	0.8	1.4	6.329	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1394	348	912	1617	0.862	1379	1080	1.9	5.6	14.335	B
B - A12 South West	1806	451	202	2052	0.880	1789	2043	2.4	6.5	12.935	B
C - A1152 East	967	242	1287	1225	0.790	959	1003	1.4	3.5	13.112	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1394	348	919	1612	0.865	1392	1089	5.6	6.0	16.140	C
B - A12 South West	1806	451	204	2051	0.880	1804	2062	6.5	6.9	14.369	B
C - A1152 East	967	242	1300	1218	0.794	966	1012	3.5	3.7	14.213	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1138	284	760	1713	0.664	1154	901	6.0	2.0	6.609	A
B - A12 South West	1475	369	169	2074	0.711	1492	1707	6.9	2.5	6.363	A
C - A1152 East	790	197	1077	1344	0.587	799	837	3.7	1.4	6.705	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	953	238	631	1796	0.531	956	748	2.0	1.1	4.306	A
B - A12 South West	1235	309	140	2092	0.590	1239	1416	2.5	1.5	4.240	A
C - A1152 East	661	165	893	1448	0.457	664	695	1.4	0.8	4.601	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.55	1.04	1.32	1.32			N/A	N/A
B - A12 South West	1.42	0.58	1.32	1.78	1.92			N/A	N/A
C - A1152 East	0.83	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.92	0.04	0.44	5.18	8.73			N/A	N/A
B - A12 South West	2.40	0.04	0.44	6.60	11.43			N/A	N/A
C - A1152 East	1.38	0.05	0.50	3.40	5.17			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.60	0.04	0.35	12.23	30.60			N/A	N/A
B - A12 South West	6.55	0.04	0.36	14.29	35.84			N/A	N/A
C - A1152 East	3.51	0.03	0.31	4.55	16.99			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.98	0.03	0.30	5.98	25.45			N/A	N/A
B - A12 South West	6.91	0.03	0.30	6.91	28.30			N/A	N/A
C - A1152 East	3.69	0.03	0.29	3.69	11.52			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.02	0.05	0.47	5.46	8.91			N/A	N/A
B - A12 South West	2.52	0.05	0.48	6.93	11.47			N/A	N/A
C - A1152 East	1.45	0.05	0.62	3.55	5.32			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.14	0.03	0.33	2.52	5.77			N/A	N/A
B - A12 South West	1.46	0.03	0.34	3.35	7.49			N/A	N/A
C - A1152 East	0.85	0.04	0.35	1.99	3.81			N/A	N/A

## 2023 Early Years, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.99	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)	Run automatically
D14	2023 Early Years	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1027	100.000
B - A12 South West		ONE HOUR	✓	1608	100.000
C - A1152 East		ONE HOUR	✓	774	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	911	114
	B - A12 South West	951	96	561
	C - A1152 East	136	634	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	11	3
	B - A12 South West	11	8	6
	C - A1152 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.67	6.35	2.0	3.1	A	942	1413
B - A12 South West	0.82	9.27	4.5	18.4	A	1475	2213
C - A1152 East	0.64	7.55	1.8	2.1	A	710	1066

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	773	193	496	1840	0.420	770	816	0.0	0.7	3.358	A
B - A12 South West	1210	303	107	2190	0.553	1206	1230	0.0	1.2	3.639	A
C - A1152 East	583	146	757	1537	0.379	580	510	0.0	0.6	3.752	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	923	231	594	1780	0.519	922	977	0.7	1.1	4.188	A
B - A12 South West	1445	361	128	2176	0.664	1442	1472	1.2	1.9	4.887	A
C - A1152 East	696	174	905	1450	0.480	695	610	0.6	0.9	4.759	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1130	283	725	1699	0.665	1127	1192	1.1	1.9	6.251	A
B - A12 South West	1770	443	156	2157	0.821	1761	1799	1.9	4.3	8.864	A
C - A1152 East	852	213	1107	1331	0.640	849	745	0.9	1.7	7.416	A

15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1130	283	728	1697	0.666	1130	1198	1.9	2.0	6.350	A
B - A12 South West	1770	443	157	2157	0.821	1770	1806	4.3	4.5	9.265	A
C - A1152 East	852	213	1110	1329	0.641	852	748	1.7	1.8	7.546	A

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	923	231	599	1777	0.520	927	985	2.0	1.1	4.253	A
B - A12 South West	1445	361	129	2176	0.664	1455	1481	4.5	2.0	5.062	A
C - A1152 East	696	174	910	1447	0.481	699	615	1.8	0.9	4.838	A

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	773	193	499	1838	0.421	774	822	1.1	0.7	3.389	A
B - A12 South West	1210	303	108	2189	0.553	1213	1237	2.0	1.2	3.701	A
C - A1152 East	583	146	761	1535	0.380	584	513	0.9	0.6	3.790	A

Queue Variation Results for each time segment

14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.72	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.22	0.56	1.06	1.22	1.55			N/A	N/A
C - A1152 East	0.61	0.55	1.00	1.40	1.45			N/A	N/A

15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.07	0.06	0.71	2.20	3.10			N/A	N/A
B - A12 South West	1.95	0.04	0.43	5.28	8.98			N/A	N/A
C - A1152 East	0.91	0.07	0.78	1.64	2.05			N/A	N/A

15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.95	0.03	0.27	1.95	1.95			N/A	N/A
B - A12 South West	4.34	0.03	0.30	4.34	18.39			N/A	N/A
C - A1152 East	1.74	0.03	0.27	1.74	1.74			N/A	N/A

15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.97	0.03	0.27	1.97	1.97			N/A	N/A
B - A12 South West	4.45	0.03	0.27	4.45	6.30			N/A	N/A
C - A1152 East	1.77	0.03	0.27	1.77	1.77			N/A	N/A

15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.09	0.13	1.03	1.71	1.98			N/A	N/A
B - A12 South West	2.01	0.06	0.83	5.13	7.74			N/A	N/A
C - A1152 East	0.94	0.11	0.93	1.37	1.75			N/A	N/A

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.73	0.05	0.59	1.16	1.70			N/A	N/A
B - A12 South West	1.25	0.04	0.38	3.19	5.70			N/A	N/A
C - A1152 East	0.62	0.05	0.48	1.28	1.28			N/A	N/A

## 2023 Early Years, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.85	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)	Run automatically
D15	2023 Early Years	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1005	100.000
B - A12 South West		ONE HOUR	✓	1651	100.000
C - A1152 East		ONE HOUR	✓	761	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	915	88
	B - A12 South West	941	90	620
	C - A1152 East	140	616	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	1
	B - A12 South West	4	2	1
	C - A1152 East	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.64	5.69	1.7	2.6	A	922	1383
B - A12 South West	0.80	7.79	3.9	12.5	A	1515	2272
C - A1152 East	0.60	6.38	1.5	1.6	A	698	1047

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	756	189	536	1890	0.400	754	812	0.0	0.7	3.163	A
B - A12 South West	1243	311	110	2314	0.537	1238	1216	0.0	1.2	3.334	A
C - A1152 East	573	143	755	1609	0.356	571	535	0.0	0.5	3.460	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	903	226	642	1826	0.495	902	972	0.7	1.0	3.891	A
B - A12 South West	1484	371	132	2299	0.646	1482	1455	1.2	1.8	4.389	A
C - A1152 East	684	171	904	1522	0.450	683	640	0.5	0.8	4.287	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1106	277	784	1740	0.636	1103	1187	1.0	1.7	5.636	A
B - A12 South West	1818	454	161	2279	0.797	1810	1780	1.8	3.8	7.541	A
C - A1152 East	838	209	1106	1403	0.597	835	782	0.8	1.5	6.306	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1106	277	787	1738	0.637	1106	1192	1.7	1.7	5.695	A
B - A12 South West	1818	454	162	2279	0.798	1817	1785	3.8	3.9	7.786	A
C - A1152 East	838	209	1109	1402	0.598	838	785	1.5	1.5	6.381	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	903	226	646	1823	0.495	906	978	1.7	1.0	3.939	A
B - A12 South West	1484	371	132	2299	0.646	1492	1463	3.9	1.8	4.509	A
C - A1152 East	684	171	908	1519	0.450	687	644	1.5	0.8	4.337	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	756	189	540	1888	0.401	758	817	1.0	0.7	3.188	A
B - A12 South West	1243	311	111	2313	0.537	1246	1223	1.8	1.2	3.382	A
C - A1152 East	573	143	759	1606	0.357	574	538	0.8	0.6	3.489	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.66	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.15	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.55	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.97	0.06	0.74	1.84	2.57			N/A	N/A
B - A12 South West	1.80	0.04	0.43	4.83	8.20			N/A	N/A
C - A1152 East	0.81	0.07	0.78	1.15	1.65			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.72	0.03	0.26	1.72	1.72			N/A	N/A
B - A12 South West	3.78	0.03	0.29	3.78	12.53			N/A	N/A
C - A1152 East	1.46	0.03	0.26	1.46	1.46			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.73	0.03	0.26	1.73	1.73			N/A	N/A
B - A12 South West	3.86	0.03	0.27	3.86	3.86			N/A	N/A
C - A1152 East	1.47	0.03	0.27	1.47	1.47			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.17	1.00	1.34	1.70			N/A	N/A
B - A12 South West	1.85	0.07	0.99	4.45	6.41			N/A	N/A
C - A1152 East	0.83	0.16	0.92	1.43	1.49			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.67	0.06	0.64	1.14	1.14			N/A	N/A
B - A12 South West	1.17	0.04	0.41	2.94	4.90			N/A	N/A
C - A1152 East	0.56	0.05	0.50	1.32	1.42			N/A	N/A

## 2028 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.46	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)	Run automatically
D16	2028 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	525	100.000
B - A12 South West		ONE HOUR	✓	642	100.000
C - A1152 East		ONE HOUR	✓	312	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	495	29
	B - A12 South West	408	23	211
	C - A1152 East	40	272	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	8	26	6
	C - A1152 East	9	4	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.28	2.46	0.4	1.2	A	481	722
B - A12 South West	0.32	2.35	0.5	1.9	A	589	883
C - A1152 East	0.21	2.73	0.3	0.9	A	287	430

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	395	99	176	2095	0.188	394	336	0.0	0.2	2.115	A
B - A12 South West	483	121	30	2249	0.215	482	594	0.0	0.3	2.037	A
C - A1152 East	235	59	389	1768	0.133	235	180	0.0	0.2	2.346	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	472	118	210	2073	0.227	471	402	0.2	0.3	2.247	A
B - A12 South West	577	144	36	2245	0.257	577	710	0.3	0.3	2.158	A
C - A1152 East	281	70	466	1724	0.163	281	216	0.2	0.2	2.493	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	578	144	257	2043	0.283	577	493	0.3	0.4	2.456	A
B - A12 South West	707	177	44	2239	0.316	706	870	0.3	0.5	2.348	A
C - A1152 East	344	86	570	1664	0.207	344	264	0.2	0.3	2.726	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	578	144	257	2043	0.283	578	493	0.4	0.4	2.456	A
B - A12 South West	707	177	44	2239	0.316	707	871	0.5	0.5	2.348	A
C - A1152 East	344	86	571	1664	0.207	344	264	0.3	0.3	2.726	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	472	118	210	2073	0.227	472	403	0.4	0.3	2.250	A
B - A12 South West	577	144	36	2245	0.257	577	711	0.5	0.3	2.161	A
C - A1152 East	281	70	466	1724	0.163	281	216	0.3	0.2	2.495	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	395	99	176	2095	0.189	395	337	0.3	0.2	2.117	A
B - A12 South West	483	121	30	2249	0.215	483	596	0.3	0.3	2.041	A
C - A1152 East	235	59	390	1767	0.133	235	181	0.2	0.2	2.349	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A12 South West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B - A12 South West	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - A1152 East	0.19	0.00	0.00	0.19	0.19			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.39	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.46	0.03	0.25	0.46	0.48			N/A	N/A
C - A1152 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.39	0.03	0.33	1.22	1.22			N/A	N/A
B - A12 South West	0.46	0.03	0.32	1.41	1.87			N/A	N/A
C - A1152 East	0.26	0.03	0.27	0.49	0.88			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B - A12 South West	0.35	0.00	0.00	0.35	0.35			N/A	N/A
C - A1152 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B - A12 South West	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A



## 2028 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.38	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)	Run automatically
D17	2028 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1015	100.000
B - A12 South West		ONE HOUR	✓	1508	100.000
C - A1152 East		ONE HOUR	✓	754	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	930	84
	B - A12 South West	838	45	625
	C - A1152 East	124	630	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	6	4
	B - A12 South West	10	13	6
	C - A1152 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.64	5.63	1.7	2.6	A	931	1397
B - A12 South West	0.76	6.98	3.2	7.2	A	1383	2075
C - A1152 East	0.59	6.16	1.4	1.5	A	692	1038

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	764	191	503	1907	0.401	761	721	0.0	0.7	3.135	A
B - A12 South West	1135	284	93	2204	0.515	1131	1204	0.0	1.1	3.344	A
C - A1152 East	568	142	732	1613	0.352	565	532	0.0	0.5	3.430	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	912	228	601	1844	0.495	911	863	0.7	1.0	3.853	A
B - A12 South West	1355	339	111	2191	0.618	1353	1441	1.1	1.6	4.283	A
C - A1152 East	678	169	876	1529	0.443	677	637	0.5	0.8	4.218	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1117	279	735	1758	0.635	1114	1055	1.0	1.7	5.563	A
B - A12 South West	1660	415	136	2175	0.763	1654	1763	1.6	3.1	6.825	A
C - A1152 East	830	208	1071	1416	0.586	828	778	0.8	1.4	6.097	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1117	279	738	1757	0.636	1117	1059	1.7	1.7	5.626	A
B - A12 South West	1660	415	137	2175	0.763	1660	1767	3.1	3.2	6.981	A
C - A1152 East	830	208	1074	1414	0.587	830	781	1.4	1.4	6.165	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	912	228	605	1842	0.495	915	868	1.7	1.0	3.897	A
B - A12 South West	1355	339	112	2191	0.619	1361	1448	3.2	1.6	4.370	A
C - A1152 East	678	169	880	1527	0.444	680	641	1.4	0.8	4.264	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	764	191	506	1906	0.401	765	725	1.0	0.7	3.162	A
B - A12 South West	1135	284	94	2203	0.515	1137	1211	1.6	1.1	3.386	A
C - A1152 East	568	142	736	1611	0.352	569	535	0.8	0.5	3.460	A

Queue Variation Results for each time segment

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.66	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.05	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.54	0.54	1.00	1.40	1.45			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.97	0.06	0.74	1.84	2.57			N/A	N/A
B - A12 South West	1.60	0.05	0.45	4.21	6.84			N/A	N/A
C - A1152 East	0.79	0.07	0.79	1.49	1.53			N/A	N/A

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.71	0.03	0.26	1.71	1.71			N/A	N/A
B - A12 South West	3.12	0.03	0.28	3.12	7.23			N/A	N/A
C - A1152 East	1.40	0.03	0.26	1.40	1.40			N/A	N/A

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.73	0.03	0.26	1.73	1.73			N/A	N/A
B - A12 South West	3.17	0.03	0.27	3.17	3.17			N/A	N/A
C - A1152 East	1.41	0.03	0.27	1.41	1.41			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.17	1.00	1.33	1.70			N/A	N/A
B - A12 South West	1.64	0.08	1.09	3.60	4.94			N/A	N/A
C - A1152 East	0.81	0.17	0.93	1.41	1.47			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.67	0.06	0.65	1.12	1.12			N/A	N/A
B - A12 South West	1.07	0.05	0.46	2.56	3.90			N/A	N/A
C - A1152 East	0.55	0.05	0.50	1.31	1.41			N/A	N/A

## 2028 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	15.70	C

#### 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)	Run automatically
D18	2028 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1322	100.000
B - A12 South West		ONE HOUR	✓	1654	100.000
C - A1152 East		ONE HOUR	✓	851	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	1	1170	151
	B - A12 South West	789	67	799
	C - A1152 East	180	670	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	6	5
	B - A12 South West	11	16	7
	C - A1152 East	5	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.90	21.86	8.3	44.6	C	1213	1819
B - A12 South West	0.86	11.73	5.7	28.4	B	1518	2277
C - A1152 East	0.79	14.07	3.5	15.9	B	781	1172

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	995	249	650	1807	0.551	990	727	0.0	1.2	4.385	A
B - A12 South West	1245	311	136	2167	0.575	1240	1429	0.0	1.3	3.859	A
C - A1152 East	641	160	928	1432	0.448	638	712	0.0	0.8	4.514	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1188	297	777	1724	0.689	1184	870	1.2	2.2	6.622	A
B - A12 South West	1487	372	163	2150	0.692	1484	1709	1.3	2.2	5.378	A
C - A1152 East	765	191	1109	1331	0.575	763	852	0.8	1.3	6.320	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1455	364	947	1614	0.901	1434	1060	2.2	7.6	18.111	C
B - A12 South West	1821	455	199	2126	0.857	1808	2074	2.2	5.5	10.893	B
C - A1152 East	937	234	1344	1200	0.781	929	1038	1.3	3.4	12.925	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1455	364	954	1610	0.904	1452	1067	7.6	8.3	21.858	C
B - A12 South West	1821	455	200	2125	0.857	1820	2097	5.5	5.7	11.731	B
C - A1152 East	937	234	1360	1191	0.787	937	1046	3.4	3.5	14.074	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1188	297	786	1718	0.692	1212	880	8.3	2.3	7.440	A
B - A12 South West	1487	372	166	2148	0.692	1501	1743	5.7	2.3	5.676	A
C - A1152 East	765	191	1135	1316	0.581	774	864	3.5	1.4	6.735	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	995	249	654	1804	0.552	999	732	2.3	1.2	4.501	A
B - A12 South West	1245	311	138	2167	0.575	1249	1442	2.3	1.4	3.940	A
C - A1152 East	641	160	936	1427	0.449	643	718	1.4	0.8	4.604	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.21	0.55	1.13	1.55	1.79			N/A	N/A
B - A12 South West	1.34	0.57	1.21	1.67	1.84			N/A	N/A
C - A1152 East	0.80	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.17	0.04	0.43	5.91	10.19			N/A	N/A
B - A12 South West	2.20	0.04	0.43	5.99	10.44			N/A	N/A
C - A1152 East	1.33	0.05	0.52	3.23	4.89			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.56	0.04	0.44	20.86	40.49			N/A	N/A
B - A12 South West	5.52	0.03	0.33	8.80	28.35			N/A	N/A
C - A1152 East	3.35	0.03	0.31	3.96	15.89			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	8.34	0.03	0.34	15.56	44.64			N/A	N/A
B - A12 South West	5.74	0.03	0.29	5.74	16.68			N/A	N/A
C - A1152 East	3.55	0.03	0.28	3.55	10.83			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.30	0.04	0.43	6.28	10.95			N/A	N/A
B - A12 South West	2.29	0.05	0.56	6.19	9.84			N/A	N/A
C - A1152 East	1.41	0.05	0.67	3.40	4.99			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.24	0.03	0.31	2.21	6.35			N/A	N/A
B - A12 South West	1.37	0.04	0.35	3.38	6.82			N/A	N/A
C - A1152 East	0.82	0.04	0.35	1.93	3.62			N/A	N/A

## 2028 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	8.28	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)	Run automatically
D19	2028 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1058	100.000
B - A12 South West		ONE HOUR	✓	1664	100.000
C - A1152 East		ONE HOUR	✓	805	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	928	128
	B - A12 South West	983	96	584
	C - A1152 East	139	661	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	8	2
	B - A12 South West	7	8	6
	C - A1152 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.67	6.32	2.0	3.3	A	971	1456
B - A12 South West	0.83	9.68	4.8	21.0	A	1527	2290
C - A1152 East	0.66	7.95	1.9	2.6	A	739	1108

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	796	199	514	1886	0.422	793	843	0.0	0.7	3.286	A
B - A12 South West	1253	313	109	2236	0.560	1248	1264	0.0	1.3	3.625	A
C - A1152 East	606	152	770	1545	0.392	604	538	0.0	0.6	3.816	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	951	238	615	1822	0.522	949	1008	0.7	1.1	4.117	A
B - A12 South West	1496	374	131	2221	0.673	1493	1513	1.3	2.0	4.918	A
C - A1152 East	724	181	921	1458	0.496	723	643	0.6	1.0	4.883	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1165	291	750	1737	0.671	1161	1231	1.1	2.0	6.212	A
B - A12 South West	1832	458	160	2202	0.832	1821	1849	2.0	4.7	9.207	A
C - A1152 East	887	222	1126	1341	0.661	883	785	1.0	1.9	7.789	A

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1165	291	755	1734	0.672	1164	1237	2.0	2.0	6.317	A
B - A12 South West	1832	458	160	2202	0.832	1831	1856	4.7	4.8	9.684	A
C - A1152 East	887	222	1130	1339	0.662	886	789	1.9	1.9	7.946	A

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	951	238	621	1819	0.523	955	1018	2.0	1.1	4.182	A
B - A12 South West	1496	374	132	2221	0.673	1507	1522	4.8	2.1	5.113	A
C - A1152 East	724	181	926	1455	0.497	728	649	1.9	1.0	4.971	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	796	199	517	1884	0.423	798	848	1.1	0.7	3.320	A
B - A12 South West	1253	313	110	2235	0.560	1256	1272	2.1	1.3	3.686	A
C - A1152 East	606	152	774	1542	0.393	608	541	1.0	0.7	3.856	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.73	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.26	0.56	1.11	1.43	1.72			N/A	N/A
C - A1152 East	0.64	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.08	0.06	0.68	2.30	3.27			N/A	N/A
B - A12 South West	2.03	0.04	0.43	5.51	9.51			N/A	N/A
C - A1152 East	0.98	0.06	0.76	1.83	2.55			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.99	0.03	0.27	1.99	1.99			N/A	N/A
B - A12 South West	4.67	0.03	0.30	4.67	21.02			N/A	N/A
C - A1152 East	1.90	0.03	0.27	1.90	2.31			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.02	0.03	0.27	2.02	2.02			N/A	N/A
B - A12 South West	4.80	0.03	0.28	4.80	8.27			N/A	N/A
C - A1152 East	1.93	0.03	0.27	1.93	1.93			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.12	1.03	1.74	2.02			N/A	N/A
B - A12 South West	2.10	0.06	0.77	5.48	8.35			N/A	N/A
C - A1152 East	1.00	0.10	0.94	1.62	1.93			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.74	0.05	0.59	1.21	1.74			N/A	N/A
B - A12 South West	1.29	0.04	0.37	3.30	6.06			N/A	N/A
C - A1152 East	0.65	0.05	0.47	1.50	1.62			N/A	N/A

## 2028 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.71	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)	Run automatically
D20	2028 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	957	100.000
B - A12 South West		ONE HOUR	✓	1671	100.000
C - A1152 East		ONE HOUR	✓	788	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	870	85
	B - A12 South West	950	90	630
	C - A1152 East	142	641	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	4	1
	B - A12 South West	3	2	1
	C - A1152 East	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.59	4.91	1.4	1.8	A	878	1317
B - A12 South West	0.80	7.99	4.0	13.8	A	1533	2300
C - A1152 East	0.60	6.18	1.5	1.7	A	723	1084

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	720	180	544	1946	0.370	718	821	0.0	0.6	2.928	A
B - A12 South West	1258	314	112	2324	0.541	1253	1201	0.0	1.2	3.345	A
C - A1152 East	593	148	722	1642	0.361	591	540	0.0	0.6	3.419	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	860	215	651	1879	0.458	859	982	0.6	0.8	3.527	A
B - A12 South West	1502	376	134	2309	0.650	1499	1437	1.2	1.8	4.430	A
C - A1152 East	708	177	864	1561	0.454	707	646	0.6	0.8	4.212	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	795	1789	0.589	1051	1200	0.8	1.4	4.849	A
B - A12 South West	1840	460	164	2289	0.804	1831	1758	1.8	3.9	7.724	A
C - A1152 East	867	217	1057	1451	0.598	865	789	0.8	1.5	6.112	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1053	263	799	1787	0.590	1053	1205	1.4	1.4	4.909	A
B - A12 South West	1840	460	164	2289	0.804	1839	1763	3.9	4.0	7.992	A
C - A1152 East	867	217	1059	1450	0.598	867	793	1.5	1.5	6.180	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	860	215	656	1876	0.459	862	989	1.4	0.9	3.559	A
B - A12 South West	1502	376	135	2309	0.651	1511	1444	4.0	1.9	4.555	A
C - A1152 East	708	177	868	1559	0.454	711	651	1.5	0.8	4.257	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	720	180	547	1944	0.371	721	826	0.9	0.6	2.947	A
B - A12 South West	1258	314	112	2324	0.541	1261	1207	1.9	1.2	3.396	A
C - A1152 East	593	148	726	1640	0.362	594	543	0.8	0.6	3.449	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.58	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.17	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.56	0.55	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.84	0.07	0.78	1.34	1.78			N/A	N/A
B - A12 South West	1.84	0.04	0.43	4.93	8.46			N/A	N/A
C - A1152 East	0.82	0.07	0.79	1.23	1.70			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.41	0.03	0.26	1.41	1.41			N/A	N/A
B - A12 South West	3.92	0.03	0.29	3.92	13.77			N/A	N/A
C - A1152 East	1.46	0.03	0.26	1.46	1.46			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.43	0.03	0.26	1.43	1.43			N/A	N/A
B - A12 South West	4.01	0.03	0.27	4.01	4.01			N/A	N/A
C - A1152 East	1.48	0.03	0.27	1.48	1.48			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.32	0.97	1.41	1.47			N/A	N/A
B - A12 South West	1.89	0.06	0.97	4.61	6.71			N/A	N/A
C - A1152 East	0.84	0.17	0.93	1.43	1.49			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.59	0.06	0.66	1.34	1.42			N/A	N/A
B - A12 South West	1.19	0.04	0.41	2.99	5.07			N/A	N/A
C - A1152 East	0.57	0.05	0.54	1.33	1.43			N/A	N/A



## 2028 Peak Construction, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.69	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)	Run automatically
D21	2028 Peak Construction	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	531	100.000
B - A12 South West		ONE HOUR	✓	854	100.000
C - A1152 East		ONE HOUR	✓	314	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	501	29
	B - A12 South West	620	23	211
	C - A1152 East	40	274	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	9	26	6
	C - A1152 East	9	4	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.29	2.48	0.4	1.3	A	487	730
B - A12 South West	0.42	2.80	0.7	2.3	A	784	1176
C - A1152 East	0.21	2.74	0.3	0.9	A	289	433

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	399	100	176	2089	0.191	398	496	0.0	0.2	2.128	A
B - A12 South West	643	161	30	2235	0.288	642	599	0.0	0.4	2.257	A
C - A1152 East	237	59	394	1765	0.134	236	181	0.0	0.2	2.352	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	477	119	211	2067	0.231	477	593	0.2	0.3	2.263	A
B - A12 South West	768	192	36	2231	0.344	768	717	0.4	0.5	2.460	A
C - A1152 East	283	71	471	1721	0.164	282	216	0.2	0.2	2.502	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	584	146	258	2036	0.287	584	726	0.3	0.4	2.478	A
B - A12 South West	941	235	44	2225	0.423	940	878	0.5	0.7	2.799	A
C - A1152 East	346	87	577	1660	0.209	346	265	0.2	0.3	2.739	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	584	146	258	2036	0.287	584	727	0.4	0.4	2.478	A
B - A12 South West	941	235	44	2225	0.423	941	879	0.7	0.7	2.801	A
C - A1152 East	346	87	577	1660	0.209	346	265	0.3	0.3	2.740	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	477	119	211	2067	0.231	477	594	0.4	0.3	2.267	A
B - A12 South West	768	192	36	2231	0.344	769	718	0.7	0.5	2.464	A
C - A1152 East	283	71	472	1720	0.164	283	217	0.3	0.2	2.504	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	399	100	177	2089	0.191	400	497	0.3	0.2	2.132	A
B - A12 South West	643	161	30	2235	0.288	644	601	0.5	0.4	2.262	A
C - A1152 East	237	59	395	1765	0.134	237	181	0.2	0.2	2.358	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A12 South West	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - A1152 East	0.15	0.00	0.00	0.15	0.15			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B - A12 South West	0.52	0.06	0.63	1.33	1.41			N/A	N/A
C - A1152 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.40	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.73	0.03	0.25	0.73	0.73			N/A	N/A
C - A1152 East	0.26	0.03	0.25	0.45	0.48			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.40	0.03	0.33	1.30	1.32			N/A	N/A
B - A12 South West	0.73	0.03	0.28	0.73	2.30			N/A	N/A
C - A1152 East	0.26	0.03	0.27	0.49	0.94			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B - A12 South West	0.53	0.53	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.20	0.00	0.00	0.20	0.20			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B - A12 South West	0.41	0.00	0.00	0.41	0.41			N/A	N/A
C - A1152 East	0.16	0.00	0.00	0.16	0.16			N/A	N/A

## 2028 Peak Construction, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	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)	Run automatically
D22	2028 Peak Construction	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1019	100.000
B - A12 South West		ONE HOUR	✓	1660	100.000
C - A1152 East		ONE HOUR	✓	756	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	934	85
	B - A12 South West	991	45	624
	C - A1152 East	124	632	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	4
	B - A12 South West	14	13	6
	C - A1152 East	3	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.64	5.73	1.8	2.7	A	935	1402
B - A12 South West	0.86	11.95	5.9	29.3	B	1523	2284
C - A1152 East	0.59	6.24	1.4	1.6	A	694	1041

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	767	192	501	1900	0.404	764	836	0.0	0.7	3.162	A
B - A12 South West	1249	312	93	2153	0.580	1244	1208	0.0	1.4	3.936	A
C - A1152 East	569	142	735	1609	0.354	567	531	0.0	0.5	3.446	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	916	229	600	1837	0.499	915	1000	0.7	1.0	3.898	A
B - A12 South West	1492	373	112	2141	0.697	1488	1446	1.4	2.3	5.484	A
C - A1152 East	680	170	879	1525	0.446	679	636	0.5	0.8	4.248	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1122	280	731	1753	0.640	1119	1219	1.0	1.7	5.647	A
B - A12 South West	1827	457	137	2125	0.860	1814	1768	2.3	5.6	11.094	B
C - A1152 East	832	208	1075	1411	0.590	830	775	0.8	1.4	6.174	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1122	280	736	1750	0.641	1122	1227	1.7	1.8	5.727	A
B - A12 South West	1827	457	137	2125	0.860	1826	1773	5.6	5.9	11.951	B
C - A1152 East	832	208	1078	1409	0.591	832	780	1.4	1.4	6.244	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	916	229	607	1832	0.500	919	1011	1.8	1.0	3.954	A
B - A12 South West	1492	373	112	2141	0.697	1506	1453	5.9	2.3	5.792	A
C - A1152 East	680	170	883	1522	0.446	682	643	1.4	0.8	4.298	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	767	192	505	1897	0.404	768	842	1.0	0.7	3.191	A
B - A12 South West	1249	312	94	2153	0.580	1253	1215	2.3	1.4	4.018	A
C - A1152 East	569	142	738	1607	0.354	570	535	0.8	0.6	3.474	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.67	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.37	0.57	1.25	1.71	1.86			N/A	N/A
C - A1152 East	0.54	0.54	1.00	1.40	1.45			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.99	0.06	0.74	1.88	2.66			N/A	N/A
B - A12 South West	2.25	0.04	0.43	6.16	10.67			N/A	N/A
C - A1152 East	0.80	0.07	0.79	1.03	1.58			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.75	0.03	0.26	1.75	1.75			N/A	N/A
B - A12 South West	5.64	0.03	0.33	9.39	29.30			N/A	N/A
C - A1152 East	1.42	0.03	0.26	1.42	1.42			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.77	0.03	0.26	1.77	1.77			N/A	N/A
B - A12 South West	5.86	0.03	0.29	5.86	17.72			N/A	N/A
C - A1152 East	1.43	0.03	0.27	1.43	1.43			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.01	0.17	1.01	1.41	1.75			N/A	N/A
B - A12 South West	2.34	0.05	0.53	6.38	10.19			N/A	N/A
C - A1152 East	0.81	0.17	0.93	1.41	1.48			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.68	0.06	0.64	1.25	1.25			N/A	N/A
B - A12 South West	1.40	0.04	0.35	3.45	7.00			N/A	N/A
C - A1152 East	0.55	0.05	0.51	1.31	1.41			N/A	N/A

## 2028 Peak Construction, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	17.50	C

#### 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)	Run automatically
D23	2028 Peak Construction	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1336	100.000
B - A12 South West		ONE HOUR	✓	1653	100.000
C - A1152 East		ONE HOUR	✓	848	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	1	1183	151
	B - A12 South West	823	67	763
	C - A1152 East	193	655	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	8	5
	B - A12 South West	17	16	7
	C - A1152 East	5	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.91	22.58	8.7	47.1	C	1226	1838
B - A12 South West	0.89	14.90	7.2	37.4	B	1516	2275
C - A1152 East	0.80	14.80	3.7	17.1	B	778	1168

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1006	251	623	1806	0.557	1001	762	0.0	1.2	4.443	A
B - A12 South West	1244	311	146	2099	0.593	1238	1427	0.0	1.4	4.154	A
C - A1152 East	639	160	937	1421	0.450	635	686	0.0	0.8	4.566	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1201	300	745	1727	0.695	1197	911	1.2	2.2	6.734	A
B - A12 South West	1486	371	174	2081	0.714	1482	1707	1.4	2.4	5.966	A
C - A1152 East	763	191	1121	1317	0.579	760	820	0.8	1.4	6.440	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1471	368	906	1624	0.905	1448	1108	2.2	7.8	18.485	C
B - A12 South West	1820	455	212	2057	0.885	1802	2070	2.4	6.8	13.315	B
C - A1152 East	934	234	1357	1184	0.789	926	997	1.4	3.5	13.491	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1471	368	914	1619	0.908	1467	1118	7.8	8.7	22.576	C
B - A12 South West	1820	455	214	2055	0.885	1818	2094	6.8	7.2	14.905	B
C - A1152 East	934	234	1375	1174	0.795	933	1007	3.5	3.7	14.804	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1201	300	756	1720	0.698	1226	925	8.7	2.4	7.638	A
B - A12 South West	1486	371	177	2079	0.715	1504	1743	7.2	2.6	6.455	A
C - A1152 East	763	191	1148	1302	0.586	772	834	3.7	1.4	6.901	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1006	251	628	1803	0.558	1010	768	2.4	1.3	4.568	A
B - A12 South West	1244	311	147	2099	0.593	1249	1440	2.6	1.5	4.255	A
C - A1152 East	639	160	946	1416	0.451	641	692	1.4	0.8	4.662	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.24	0.55	1.16	1.61	1.82			N/A	N/A
B - A12 South West	1.44	0.58	1.34	1.80	1.93			N/A	N/A
C - A1152 East	0.81	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.23	0.04	0.44	6.08	10.49			N/A	N/A
B - A12 South West	2.44	0.04	0.44	6.71	11.65			N/A	N/A
C - A1152 East	1.35	0.05	0.50	3.32	5.00			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	7.81	0.05	0.45	21.79	41.51			N/A	N/A
B - A12 South West	6.80	0.04	0.37	15.50	37.37			N/A	N/A
C - A1152 East	3.49	0.03	0.31	4.69	17.06			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	8.69	0.04	0.35	17.21	47.09			N/A	N/A
B - A12 South West	7.21	0.03	0.31	7.21	30.98			N/A	N/A
C - A1152 East	3.71	0.03	0.29	3.71	12.28			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.37	0.04	0.43	6.51	11.38			N/A	N/A
B - A12 South West	2.56	0.05	0.47	7.08	11.80			N/A	N/A
C - A1152 East	1.44	0.05	0.62	3.52	5.25			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.28	0.03	0.31	2.24	6.51			N/A	N/A
B - A12 South West	1.47	0.03	0.34	3.32	7.59			N/A	N/A
C - A1152 East	0.83	0.03	0.35	1.94	3.74			N/A	N/A

## 2028 Peak Construction, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	8.99	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)	Run automatically
D24	2028 Peak Construction	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1142	100.000
B - A12 South West		ONE HOUR	✓	1609	100.000
C - A1152 East		ONE HOUR	✓	805	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	1023	116
	B - A12 South West	975	96	538
	C - A1152 East	139	661	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	10	3
	B - A12 South West	11	8	6
	C - A1152 East	4	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.73	7.70	2.6	5.6	A	1048	1571
B - A12 South West	0.83	9.64	4.6	19.9	A	1476	2214
C - A1152 East	0.70	9.54	2.3	5.7	A	739	1108

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	860	215	479	1863	0.461	856	837	0.0	0.9	3.564	A
B - A12 South West	1211	303	110	2177	0.556	1206	1335	0.0	1.2	3.693	A
C - A1152 East	606	152	841	1493	0.406	603	495	0.0	0.7	4.034	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1026	257	573	1804	0.569	1025	1001	0.9	1.3	4.609	A
B - A12 South West	1446	362	131	2162	0.669	1443	1597	1.2	2.0	4.985	A
C - A1152 East	724	181	1006	1397	0.518	722	592	0.7	1.1	5.328	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	700	1726	0.728	1252	1222	1.3	2.6	7.507	A
B - A12 South West	1771	443	160	2144	0.826	1761	1951	2.0	4.5	9.182	A
C - A1152 East	887	222	1229	1266	0.700	882	722	1.1	2.3	9.250	A

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1257	314	704	1724	0.729	1257	1228	2.6	2.6	7.700	A
B - A12 South West	1771	443	161	2143	0.827	1771	1960	4.5	4.6	9.636	A
C - A1152 East	887	222	1234	1263	0.702	886	726	2.3	2.3	9.540	A

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1026	257	579	1801	0.570	1032	1010	2.6	1.3	4.708	A
B - A12 South West	1446	362	132	2162	0.669	1457	1610	4.6	2.1	5.179	A
C - A1152 East	724	181	1013	1392	0.520	729	597	2.3	1.1	5.464	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	860	215	482	1861	0.462	861	842	1.3	0.9	3.611	A
B - A12 South West	1211	303	110	2176	0.557	1214	1343	2.1	1.3	3.754	A
C - A1152 East	606	152	846	1490	0.407	608	498	1.1	0.7	4.088	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.85	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.24	0.56	1.08	1.29	1.64			N/A	N/A
C - A1152 East	0.68	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.30	0.05	0.51	3.14	4.78			N/A	N/A
B - A12 South West	1.99	0.04	0.43	5.40	9.21			N/A	N/A
C - A1152 East	1.06	0.06	0.70	2.19	3.09			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.60	0.03	0.28	2.60	5.58			N/A	N/A
B - A12 South West	4.50	0.03	0.30	4.50	19.89			N/A	N/A
C - A1152 East	2.26	0.03	0.28	2.26	5.71			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	2.65	0.03	0.27	2.65	2.65			N/A	N/A
B - A12 South West	4.63	0.03	0.28	4.63	7.54			N/A	N/A
C - A1152 East	2.31	0.03	0.27	2.31	3.20			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.34	0.08	1.03	2.67	3.60			N/A	N/A
B - A12 South West	2.06	0.06	0.79	5.33	8.06			N/A	N/A
C - A1152 East	1.10	0.07	0.90	1.96	2.73			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.86	0.05	0.46	1.87	2.83			N/A	N/A
B - A12 South West	1.27	0.04	0.38	3.25	5.90			N/A	N/A
C - A1152 East	0.69	0.04	0.42	1.43	2.05			N/A	N/A



## 2028 Peak Construction, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	6.88	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)	Run automatically
D25	2028 Peak Construction	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	992	100.000
B - A12 South West		ONE HOUR	✓	1643	100.000
C - A1152 East		ONE HOUR	✓	794	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	904	85
	B - A12 South West	954	90	599
	C - A1152 East	143	646	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	8	1
	B - A12 South West	5	2	1
	C - A1152 East	1	2	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.62	5.48	1.6	2.3	A	910	1365
B - A12 South West	0.80	7.81	3.9	12.6	A	1508	2262
C - A1152 East	0.62	6.74	1.6	1.9	A	728	1093

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	747	187	521	1896	0.394	744	824	0.0	0.6	3.118	A
B - A12 South West	1237	309	113	2304	0.537	1232	1230	0.0	1.1	3.346	A
C - A1152 East	598	149	747	1613	0.371	595	517	0.0	0.6	3.530	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	891	223	623	1834	0.486	890	986	0.6	0.9	3.808	A
B - A12 South West	1477	369	135	2289	0.645	1475	1472	1.1	1.8	4.404	A
C - A1152 East	714	178	894	1527	0.467	712	619	0.6	0.9	4.415	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1092	273	761	1751	0.624	1089	1205	0.9	1.6	5.417	A
B - A12 South West	1809	452	165	2269	0.797	1801	1800	1.8	3.8	7.566	A
C - A1152 East	874	219	1094	1409	0.620	871	756	0.9	1.6	6.651	A

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1092	273	764	1749	0.624	1092	1210	1.6	1.6	5.478	A
B - A12 South West	1809	452	165	2269	0.797	1809	1805	3.8	3.9	7.814	A
C - A1152 East	874	219	1097	1408	0.621	874	759	1.6	1.6	6.741	A

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	891	223	628	1831	0.487	894	993	1.6	1.0	3.852	A
B - A12 South West	1477	369	136	2289	0.645	1485	1480	3.9	1.8	4.523	A
C - A1152 East	714	178	899	1524	0.468	717	623	1.6	0.9	4.474	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	747	187	524	1894	0.394	748	829	1.0	0.7	3.142	A
B - A12 South West	1237	309	113	2304	0.537	1240	1237	1.8	1.2	3.393	A
C - A1152 East	598	149	751	1611	0.371	599	520	0.9	0.6	3.560	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.15	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.58	0.55	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.94	0.06	0.76	1.73	2.32			N/A	N/A
B - A12 South West	1.79	0.04	0.43	4.82	8.18			N/A	N/A
C - A1152 East	0.87	0.07	0.78	1.48	1.88			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.63	0.03	0.26	1.63	1.63			N/A	N/A
B - A12 South West	3.78	0.03	0.29	3.78	12.56			N/A	N/A
C - A1152 East	1.60	0.03	0.26	1.60	1.60			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.65	0.03	0.26	1.65	1.65			N/A	N/A
B - A12 South West	3.86	0.03	0.27	3.86	3.86			N/A	N/A
C - A1152 East	1.62	0.03	0.27	1.62	1.62			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.96	0.20	0.99	1.10	1.57			N/A	N/A
B - A12 South West	1.84	0.07	0.99	4.44	6.41			N/A	N/A
C - A1152 East	0.89	0.13	0.93	1.49	1.49			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.06	0.66	1.39	1.48			N/A	N/A
B - A12 South West	1.17	0.04	0.41	2.94	4.90			N/A	N/A
C - A1152 East	0.59	0.05	0.51	1.36	1.47			N/A	N/A

## 2034 Reference Case, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.61	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)	Run automatically
D26	2034 Reference Case	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	468	100.000
B - A12 South West		ONE HOUR	✓	681	100.000
C - A1152 East		ONE HOUR	✓	450	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	437	30
	B - A12 South West	415	23	243
	C - A1152 East	47	403	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	8	26	10
	C - A1152 East	8	7	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.26	2.40	0.3	1.4	A	429	644
B - A12 South West	0.34	2.45	0.5	2.3	A	625	937
C - A1152 East	0.30	3.06	0.4	1.6	A	413	620

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	352	88	200	2075	0.170	351	347	0.0	0.2	2.086	A
B - A12 South West	513	128	35	2228	0.230	511	648	0.0	0.3	2.097	A
C - A1152 East	339	85	346	1763	0.192	338	205	0.0	0.2	2.625	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	420	105	239	2049	0.205	420	415	0.2	0.3	2.209	A
B - A12 South West	612	153	42	2223	0.275	612	776	0.3	0.4	2.234	A
C - A1152 East	405	101	414	1725	0.235	405	246	0.2	0.3	2.727	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	515	129	293	2014	0.256	514	508	0.3	0.3	2.401	A
B - A12 South West	750	187	52	2216	0.338	749	950	0.4	0.5	2.453	A
C - A1152 East	496	124	506	1672	0.297	495	301	0.3	0.4	3.060	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	515	129	293	2014	0.256	515	508	0.3	0.3	2.401	A
B - A12 South West	750	187	52	2216	0.338	750	951	0.5	0.5	2.453	A
C - A1152 East	496	124	507	1672	0.297	496	301	0.4	0.4	3.060	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	420	105	240	2049	0.205	421	415	0.3	0.3	2.212	A
B - A12 South West	612	153	42	2223	0.275	613	777	0.5	0.4	2.237	A
C - A1152 East	405	101	414	1724	0.235	405	246	0.4	0.3	2.731	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	352	88	201	2075	0.170	352	348	0.3	0.2	2.091	A
B - A12 South West	513	128	36	2227	0.230	513	651	0.4	0.3	2.099	A
C - A1152 East	339	85	347	1762	0.192	339	206	0.3	0.2	2.531	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B - A12 South West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A1152 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.51	0.03	0.25	0.51	0.51			N/A	N/A
C - A1152 East	0.42	0.03	0.25	0.45	0.48			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.03	0.33	1.13	1.36			N/A	N/A
B - A12 South West	0.51	0.03	0.31	1.42	2.32			N/A	N/A
C - A1152 East	0.42	0.03	0.32	1.34	1.57			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B - A12 South West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A1152 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

## 2034 Reference Case, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.01	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)	Run automatically
D27	2034 Reference Case	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	893	100.000
B - A12 South West		ONE HOUR	✓	1560	100.000
C - A1152 East		ONE HOUR	✓	869	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	809	84
	B - A12 South West	842	45	673
	C - A1152 East	153	716	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	4	4
	B - A12 South West	8	13	9
	C - A1152 East	3	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.57	4.76	1.3	1.5	A	819	1229
B - A12 South West	0.80	8.16	3.8	13.0	A	1431	2147
C - A1152 East	0.66	7.15	1.9	2.6	A	797	1196

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	672	168	538	1906	0.353	670	746	0.0	0.5	2.907	A
B - A12 South West	1174	294	115	2192	0.536	1170	1177	0.0	1.1	3.505	A
C - A1152 East	654	164	641	1627	0.402	652	568	0.0	0.7	3.682	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	644	1836	0.437	802	893	0.5	0.8	3.478	A
B - A12 South West	1402	351	137	2177	0.644	1400	1409	1.1	1.8	4.614	A
C - A1152 East	781	195	767	1557	0.502	780	679	0.7	1.0	4.626	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	983	246	787	1741	0.565	981	1091	0.8	1.3	4.726	A
B - A12 South West	1717	429	168	2157	0.796	1709	1723	1.8	3.7	7.898	A
C - A1152 East	957	239	938	1461	0.655	953	830	1.0	1.9	7.037	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	983	246	790	1738	0.565	983	1095	1.3	1.3	4.765	A
B - A12 South West	1717	429	169	2157	0.796	1717	1728	3.7	3.8	8.164	A
C - A1152 East	957	239	940	1460	0.655	957	833	1.9	1.9	7.145	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	649	1832	0.438	805	900	1.3	0.8	3.508	A
B - A12 South West	1402	351	138	2177	0.644	1410	1416	3.8	1.8	4.742	A
C - A1152 East	781	195	770	1555	0.502	785	684	1.9	1.0	4.693	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	672	168	542	1904	0.353	673	751	0.8	0.5	2.926	A
B - A12 South West	1174	294	116	2192	0.536	1177	1184	1.8	1.2	3.558	A
C - A1152 East	654	164	644	1625	0.403	656	571	1.0	0.7	3.716	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.54	0.54	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.14	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.67	0.55	1.00	1.40	1.45			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.07	0.78	1.44	1.44			N/A	N/A
B - A12 South West	1.78	0.04	0.44	4.78	7.97			N/A	N/A
C - A1152 East	1.00	0.06	0.76	1.88	2.65			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.28	0.03	0.26	1.28	1.28			N/A	N/A
B - A12 South West	3.74	0.03	0.29	3.74	12.96			N/A	N/A
C - A1152 East	1.85	0.03	0.27	1.85	1.85			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.29	0.03	0.27	1.29	1.29			N/A	N/A
B - A12 South West	3.82	0.03	0.27	3.82	3.82			N/A	N/A
C - A1152 East	1.88	0.03	0.27	1.88	1.88			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.78	0.40	0.97	1.40	1.45			N/A	N/A
B - A12 South West	1.84	0.06	0.96	4.45	6.45			N/A	N/A
C - A1152 East	1.02	0.11	0.98	1.60	1.91			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.55	0.06	0.61	1.32	1.41			N/A	N/A
B - A12 South West	1.16	0.04	0.41	2.93	4.90			N/A	N/A
C - A1152 East	0.68	0.05	0.52	1.49	1.58			N/A	N/A

## 2034 Reference Case, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	11.61	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)	Run automatically
D28	2034 Reference Case	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1211	100.000
B - A12 South West		ONE HOUR	✓	1635	100.000
C - A1152 East		ONE HOUR	✓	888	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	1	1032	178
	B - A12 South West	747	67	821
	C - A1152 East	93	794	1

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	5	4
	B - A12 South West	8	16	10
	C - A1152 East	10	11	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.83	13.29	4.8	23.3	B	1111	1667
B - A12 South West	0.83	9.40	4.6	19.4	A	1501	2251
C - A1152 East	0.79	13.47	3.6	16.0	B	815	1223

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	912	228	667	1811	0.503	908	630	0.0	1.0	3.969	A
B - A12 South West	1231	308	71	2205	0.558	1226	1419	0.0	1.3	3.661	A
C - A1152 East	669	167	824	1449	0.462	665	750	0.0	0.8	4.576	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1088	272	798	1723	0.632	1086	754	1.0	1.7	5.627	A
B - A12 South West	1470	368	85	2195	0.670	1467	1698	1.3	2.0	4.923	A
C - A1152 East	799	200	986	1363	0.586	796	897	0.8	1.4	6.333	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1333	333	974	1604	0.831	1322	920	1.7	4.5	12.261	B
B - A12 South West	1800	450	104	2182	0.825	1791	2067	2.0	4.5	8.968	A
C - A1152 East	978	245	1201	1248	0.784	970	1094	1.4	3.4	12.586	B

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1088	272	979	1601	0.833	1332	926	4.5	4.8	13.292	B
B - A12 South West	1800	450	104	2182	0.825	1800	2083	4.5	4.6	9.396	A
C - A1152 East	978	245	1210	1243	0.787	977	1101	3.4	3.6	13.471	B

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1088	272	805	1718	0.634	1100	761	4.8	1.8	5.940	A
B - A12 South West	1470	368	86	2194	0.670	1480	1720	4.6	2.1	5.108	A
C - A1152 East	799	200	1000	1356	0.589	807	906	3.6	1.5	6.656	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	912	228	671	1808	0.504	914	635	1.8	1.0	4.043	A
B - A12 South West	1231	308	72	2204	0.558	1234	1430	2.1	1.3	3.721	A
C - A1152 East	669	167	831	1446	0.463	671	755	1.5	0.9	4.661	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.00	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.25	0.56	1.09	1.33	1.67			N/A	N/A
C - A1152 East	0.85	0.55	1.00	1.40	1.45			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.69	0.04	0.44	4.50	7.42			N/A	N/A
B - A12 South West	1.99	0.04	0.43	5.43	9.27			N/A	N/A
C - A1152 East	1.39	0.05	0.52	3.44	5.20			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	4.55	0.03	0.32	7.15	23.26			N/A	N/A
B - A12 South West	4.47	0.03	0.30	4.47	19.36			N/A	N/A
C - A1152 East	3.40	0.03	0.31	3.92	16.02			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	4.76	0.03	0.29	4.76	15.05			N/A	N/A
B - A12 South West	4.59	0.03	0.28	4.59	6.92			N/A	N/A
C - A1152 East	3.55	0.03	0.28	3.55	9.93			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.76	0.05	0.51	4.59	7.13			N/A	N/A
B - A12 South West	2.06	0.06	0.81	5.33	8.03			N/A	N/A
C - A1152 East	1.46	0.05	0.65	3.55	5.28			N/A	N/A

## 09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.03	0.03	0.34	2.46	4.94			N/A	N/A
B - A12 South West	1.28	0.04	0.38	3.28	5.90			N/A	N/A
C - A1152 East	0.87	0.04	0.36	2.06	3.82			N/A	N/A



## 2034 Reference Case, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	8.22	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)	Run automatically
D29	2034 Reference Case	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1006	100.000
B - A12 South West		ONE HOUR	✓	1621	100.000
C - A1152 East		ONE HOUR	✓	918	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	872	132
	B - A12 South West	999	96	526
	C - A1152 East	151	763	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	6	2
	B - A12 South West	5	8	9
	C - A1152 East	3	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.62	5.26	1.6	2.2	A	923	1384
B - A12 South West	0.81	8.81	4.3	16.6	A	1487	2231
C - A1152 East	0.74	10.36	2.9	9.9	B	843	1264

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	757	189	470	1936	0.391	755	863	0.0	0.6	3.042	A
B - A12 South West	1220	305	118	2229	0.547	1215	1298	0.0	1.2	3.537	A
C - A1152 East	691	173	728	1545	0.447	688	497	0.0	0.8	4.184	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	904	226	562	1875	0.482	903	1033	0.6	0.9	3.698	A
B - A12 South West	1457	364	141	2213	0.658	1454	1553	1.2	1.9	4.726	A
C - A1152 East	825	206	871	1466	0.563	824	595	0.8	1.3	5.585	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1107	277	687	1793	0.617	1105	1261	0.9	1.6	5.208	A
B - A12 South West	1785	446	172	2192	0.814	1775	1898	1.9	4.2	8.452	A
C - A1152 East	1011	253	1065	1359	0.744	1005	726	1.3	2.8	9.997	A

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1107	277	690	1791	0.618	1107	1268	1.6	1.6	5.264	A
B - A12 South West	1785	446	173	2192	0.814	1784	1905	4.2	4.3	8.806	A
C - A1152 East	1011	253	1068	1358	0.745	1011	729	2.8	2.9	10.358	B

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	904	226	567	1872	0.483	907	1042	1.6	0.9	3.742	A
B - A12 South West	1457	364	143	2212	0.659	1466	1564	4.3	2.0	4.885	A
C - A1152 East	825	206	875	1464	0.564	832	599	2.9	1.3	5.744	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	757	189	473	1934	0.392	758	869	0.9	0.6	3.065	A
B - A12 South West	1220	305	119	2228	0.548	1223	1306	2.0	1.2	3.591	A
C - A1152 East	691	173	731	1543	0.448	693	500	1.3	0.8	4.244	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.64	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.20	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.80	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.06	0.76	1.69	2.21			N/A	N/A
B - A12 South West	1.90	0.04	0.43	5.12	8.75			N/A	N/A
C - A1152 East	1.27	0.05	0.59	2.95	4.46			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.59	0.03	0.26	1.59	1.59			N/A	N/A
B - A12 South West	4.17	0.03	0.30	4.17	16.65			N/A	N/A
C - A1152 East	2.79	0.03	0.29	2.79	9.87			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.61	0.03	0.26	1.61	1.61			N/A	N/A
B - A12 South West	4.27	0.03	0.27	4.27	5.01			N/A	N/A
C - A1152 East	2.85	0.03	0.27	2.85	4.43			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.94	0.22	0.99	1.46	1.46			N/A	N/A
B - A12 South West	1.96	0.06	0.88	4.91	7.32			N/A	N/A
C - A1152 East	1.31	0.06	0.86	2.83	3.96			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.06	0.67	1.37	1.46			N/A	N/A
B - A12 South West	1.22	0.04	0.39	3.12	5.48			N/A	N/A
C - A1152 East	0.82	0.04	0.40	1.88	3.03			N/A	N/A

## 2034 Reference Case, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.37	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)	Run automatically
D30	2034 Reference Case	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	902	100.000
B - A12 South West		ONE HOUR	✓	1613	100.000
C - A1152 East		ONE HOUR	✓	1053	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	797	103
	B - A12 South West	985	90	538
	C - A1152 East	139	909	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	2	0
	B - A12 South West	2	2	3
	C - A1152 East	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.53	4.07	1.1	1.5	A	828	1241
B - A12 South West	0.77	6.92	3.4	8.1	A	1480	2220
C - A1152 East	0.78	10.83	3.4	13.8	B	966	1449

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	679	170	475	2021	0.336	677	844	0.0	0.5	2.675	A
B - A12 South West	1214	304	109	2330	0.521	1210	1347	0.0	1.1	3.203	A
C - A1152 East	793	198	667	1663	0.477	789	484	0.0	0.9	4.105	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	811	203	568	1960	0.414	810	1010	0.5	0.7	3.128	A
B - A12 South West	1450	362	131	2315	0.626	1448	1612	1.1	1.7	4.139	A
C - A1152 East	946	237	799	1590	0.595	944	579	0.9	1.4	5.556	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	993	248	694	1879	0.529	991	1235	0.7	1.1	4.050	A
B - A12 South West	1776	444	159	2296	0.774	1769	1970	1.7	3.3	6.754	A
C - A1152 East	1159	290	977	1491	0.777	1152	708	1.4	3.3	10.377	B

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	993	248	697	1877	0.529	993	1239	1.1	1.1	4.072	A
B - A12 South West	1776	444	160	2295	0.774	1776	1978	3.3	3.4	6.922	A
C - A1152 East	1159	290	979	1490	0.778	1159	710	3.3	3.4	10.834	B

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	811	203	571	1958	0.414	812	1017	1.1	0.7	3.148	A
B - A12 South West	1450	362	132	2314	0.627	1457	1623	3.4	1.7	4.229	A
C - A1152 East	946	237	801	1589	0.596	954	583	3.4	1.5	5.740	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	679	170	477	2019	0.336	680	849	0.7	0.5	2.688	A
B - A12 South West	1214	304	110	2329	0.521	1217	1355	1.7	1.1	3.242	A
C - A1152 East	793	198	670	1661	0.477	795	487	1.5	0.9	4.169	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.50	0.50	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.08	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.90	0.55	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.08	0.78	1.39	1.47			N/A	N/A
B - A12 South West	1.66	0.04	0.44	4.40	7.30			N/A	N/A
C - A1152 East	1.45	0.05	0.49	3.67	5.68			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.11	0.03	0.26	1.11	1.11			N/A	N/A
B - A12 South West	3.31	0.03	0.28	3.31	8.10			N/A	N/A
C - A1152 East	3.32	0.03	0.30	3.32	13.77			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.27	1.12	1.34			N/A	N/A
B - A12 South West	3.36	0.03	0.27	3.36	3.36			N/A	N/A
C - A1152 East	3.41	0.03	0.28	3.41	6.13			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.70	0.08	1.09	3.79	5.28			N/A	N/A
C - A1152 East	1.50	0.06	0.79	3.56	5.16			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.51	0.05	0.51	1.30	1.40			N/A	N/A
B - A12 South West	1.10	0.04	0.45	2.67	4.13			N/A	N/A
C - A1152 East	0.92	0.04	0.38	2.24	3.86			N/A	N/A

## 2034 Operational Led, 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	2.61	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)	Run automatically
D31	2034 Operational Led	6-7 AM	ONE HOUR	05:45	07:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	470	100.000
B - A12 South West		ONE HOUR	✓	682	100.000
C - A1152 East		ONE HOUR	✓	448	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	439	30
	B - A12 South West	416	23	243
	C - A1152 East	47	401	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	7	7
	B - A12 South West	8	26	10
	C - A1152 East	8	7	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.26	2.40	0.3	1.4	A	431	646
B - A12 South West	0.34	2.45	0.5	2.3	A	626	938
C - A1152 East	0.30	3.06	0.4	1.6	A	411	617

#### Main Results for each time segment

##### 05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	354	88	200	2076	0.170	353	348	0.0	0.2	2.087	A
B - A12 South West	513	128	35	2228	0.230	512	649	0.0	0.3	2.097	A
C - A1152 East	338	84	347	1762	0.192	337	205	0.0	0.2	2.625	A

##### 06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	422	106	239	2050	0.206	422	416	0.2	0.3	2.211	A
B - A12 South West	613	153	42	2224	0.276	613	776	0.3	0.4	2.234	A
C - A1152 East	403	101	415	1723	0.234	403	246	0.2	0.3	2.726	A

##### 06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	517	129	293	2014	0.257	517	509	0.3	0.3	2.403	A
B - A12 South West	751	188	52	2217	0.339	750	950	0.4	0.5	2.454	A
C - A1152 East	494	123	509	1671	0.296	493	301	0.3	0.4	3.058	A

## 06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	517	129	293	2014	0.257	517	509	0.3	0.3	2.404	A
B - A12 South West	751	188	52	2217	0.339	751	951	0.5	0.5	2.454	A
C - A1152 East	494	123	509	1670	0.296	494	301	0.4	0.4	3.058	A

## 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	422	106	239	2050	0.206	422	416	0.3	0.3	2.212	A
B - A12 South West	613	153	42	2224	0.276	613	777	0.5	0.4	2.237	A
C - A1152 East	403	101	416	1723	0.234	404	246	0.4	0.3	2.730	A

## 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	354	88	201	2076	0.170	354	349	0.3	0.2	2.090	A
B - A12 South West	513	128	36	2228	0.230	514	651	0.4	0.3	2.101	A
C - A1152 East	338	84	348	1761	0.192	338	206	0.3	0.2	2.531	A

## Queue Variation Results for each time segment

## 05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.20	0.00	0.00	0.20	0.20			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

## 06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B - A12 South West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A1152 East	0.30	0.00	0.00	0.30	0.30			N/A	N/A

## 06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.03	0.25	0.45	0.48			N/A	N/A
B - A12 South West	0.51	0.03	0.25	0.51	0.51			N/A	N/A
C - A1152 East	0.42	0.03	0.25	0.45	0.48			N/A	N/A

## 06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.34	0.03	0.33	1.13	1.37			N/A	N/A
B - A12 South West	0.51	0.03	0.31	1.42	2.32			N/A	N/A
C - A1152 East	0.42	0.03	0.32	1.34	1.56			N/A	N/A

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B - A12 South West	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - A1152 East	0.31	0.00	0.00	0.31	0.31			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B - A12 South West	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A1152 East	0.24	0.00	0.00	0.24	0.24			N/A	N/A

## 2034 Operational Led, 7-8 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.11	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)	Run automatically
D32	2034 Operational Led	7-8 AM	ONE HOUR	06:45	08:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	894	100.000
B - A12 South West		ONE HOUR	✓	1560	100.000
C - A1152 East		ONE HOUR	✓	878	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	809	85
	B - A12 South West	843	45	671
	C - A1152 East	162	716	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	4	4
	B - A12 South West	8	13	9
	C - A1152 East	3	6	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.57	4.76	1.3	1.5	A	820	1230
B - A12 South West	0.80	8.31	3.9	13.6	A	1431	2147
C - A1152 East	0.66	7.28	1.9	2.8	A	806	1209

#### Main Results for each time segment

##### 06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	673	168	537	1907	0.353	671	754	0.0	0.5	2.907	A
B - A12 South West	1174	294	121	2186	0.537	1170	1178	0.0	1.2	3.526	A
C - A1152 East	661	165	641	1628	0.406	658	567	0.0	0.7	3.702	A

##### 07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	643	1836	0.437	802	902	0.5	0.8	3.478	A
B - A12 South West	1402	351	145	2171	0.646	1400	1409	1.2	1.8	4.653	A
C - A1152 East	789	197	767	1558	0.507	788	679	0.7	1.0	4.668	A

##### 07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	984	246	785	1742	0.565	982	1102	0.8	1.3	4.726	A
B - A12 South West	1717	429	178	2149	0.799	1709	1723	1.8	3.8	8.033	A
C - A1152 East	967	242	938	1462	0.661	963	829	1.0	1.9	7.162	A

## 07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	984	246	788	1739	0.566	984	1107	1.3	1.3	4.765	A
B - A12 South West	1717	429	178	2149	0.799	1717	1728	3.8	3.9	8.314	A
C - A1152 East	967	242	940	1461	0.662	967	832	1.9	1.9	7.278	A

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	648	1833	0.438	805	909	1.3	0.8	3.511	A
B - A12 South West	1402	351	146	2170	0.646	1410	1416	3.9	1.9	4.790	A
C - A1152 East	789	197	770	1556	0.507	793	683	1.9	1.0	4.738	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	673	168	541	1905	0.353	674	759	0.8	0.5	2.926	A
B - A12 South West	1174	294	122	2186	0.537	1177	1184	1.9	1.2	3.580	A
C - A1152 East	661	165	644	1626	0.406	662	571	1.0	0.7	3.742	A

## Queue Variation Results for each time segment

## 06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.54	0.54	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.15	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.68	0.55	1.00	1.40	1.45			N/A	N/A

## 07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.77	0.07	0.78	1.45	1.45			N/A	N/A
B - A12 South West	1.80	0.04	0.44	4.82	8.07			N/A	N/A
C - A1152 East	1.02	0.06	0.75	1.94	2.76			N/A	N/A

## 07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.28	0.03	0.26	1.28	1.28			N/A	N/A
B - A12 South West	3.81	0.03	0.29	3.81	13.62			N/A	N/A
C - A1152 East	1.91	0.03	0.27	1.91	1.91			N/A	N/A

## 07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.29	0.03	0.27	1.29	1.29			N/A	N/A
B - A12 South West	3.89	0.03	0.27	3.89	3.89			N/A	N/A
C - A1152 East	1.93	0.03	0.27	1.93	1.93			N/A	N/A

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.79	0.40	0.97	1.40	1.45			N/A	N/A
B - A12 South West	1.85	0.06	0.95	4.52	6.58			N/A	N/A
C - A1152 East	1.04	0.11	0.98	1.67	1.96			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.55	0.06	0.61	1.32	1.41			N/A	N/A
B - A12 South West	1.17	0.04	0.41	2.94	4.97			N/A	N/A
C - A1152 East	0.69	0.05	0.50	1.08	1.67			N/A	N/A



## 2034 Operational Led, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	13.11	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)	Run automatically
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1210	100.000
B - A12 South West		ONE HOUR	✓	1693	100.000
C - A1152 East		ONE HOUR	✓	915	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

From	To		
	A - A12 North	B - A12 South West	C - A1152 East
A - A12 North	1	1032	177
B - A12 South West	778	67	848
C - A1152 East	96	819	1

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A - A12 North	B - A12 South West	C - A1152 East
A - A12 North	0	5	4
B - A12 South West	8	16	10
C - A1152 East	10	11	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.84	14.27	5.1	25.5	B	1110	1665
B - A12 South West	0.86	11.32	5.7	27.7	B	1554	2331
C - A1152 East	0.81	14.92	4.0	19.5	B	840	1260

#### Main Results for each time segment

##### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	911	228	687	1796	0.507	907	656	0.0	1.0	4.029	A
B - A12 South West	1275	319	73	2203	0.579	1269	1437	0.0	1.4	3.834	A
C - A1152 East	689	172	824	1453	0.474	686	769	0.0	0.9	4.671	A

##### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1088	272	821	1706	0.638	1085	785	1.0	1.7	5.770	A
B - A12 South West	1522	381	87	2193	0.694	1519	1719	1.4	2.2	5.311	A
C - A1152 East	823	206	986	1366	0.602	821	920	0.9	1.5	6.568	A

##### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1332	333	1001	1585	0.840	1320	956	1.7	4.8	12.993	B
B - A12 South West	1864	466	106	2180	0.855	1851	2092	2.2	5.5	10.559	B
C - A1152 East	1008	252	1200	1252	0.805	998	1121	1.5	3.8	13.726	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1332	333	1008	1581	0.843	1331	963	4.8	5.1	14.272	B
B - A12 South West	1864	466	107	2179	0.855	1863	2110	5.5	5.7	11.319	B
C - A1152 East	1008	252	1210	1246	0.809	1007	1129	3.8	4.0	14.923	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1088	272	831	1700	0.640	1101	794	5.1	1.8	6.137	A
B - A12 South West	1522	381	89	2192	0.694	1536	1745	5.7	2.3	5.593	A
C - A1152 East	823	206	1001	1359	0.606	833	931	4.0	1.6	6.972	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	911	228	692	1793	0.508	914	661	1.8	1.0	4.111	A
B - A12 South West	1275	319	74	2203	0.579	1278	1449	2.3	1.4	3.912	A
C - A1152 East	689	172	831	1449	0.475	692	774	1.6	0.9	4.767	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.02	0.55	1.00	1.41	1.46			N/A	N/A
B - A12 South West	1.36	0.57	1.23	1.69	1.85			N/A	N/A
C - A1152 East	0.89	0.55	1.00	1.40	1.45			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.73	0.04	0.44	4.62	7.67			N/A	N/A
B - A12 South West	2.23	0.04	0.43	6.07	10.57			N/A	N/A
C - A1152 East	1.49	0.05	0.49	3.76	5.82			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	4.83	0.03	0.33	8.65	25.49			N/A	N/A
B - A12 South West	5.47	0.03	0.32	8.25	27.69			N/A	N/A
C - A1152 East	3.83	0.03	0.32	5.90	19.47			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	5.09	0.03	0.29	5.09	18.15			N/A	N/A
B - A12 South West	5.68	0.03	0.28	5.68	15.44			N/A	N/A
C - A1152 East	4.03	0.03	0.29	4.03	13.58			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.81	0.05	0.49	4.77	7.55			N/A	N/A
B - A12 South West	2.32	0.05	0.59	6.25	9.87			N/A	N/A
C - A1152 East	1.56	0.05	0.53	3.94	6.08			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.04	0.03	0.34	2.44	5.13			N/A	N/A
B - A12 South West	1.39	0.04	0.36	3.47	6.89			N/A	N/A
C - A1152 East	0.92	0.03	0.35	2.17	4.28			N/A	N/A

## 2034 Operational Led, 3-4 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	8.26	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)	Run automatically
D34	2034 Operational Led	3-4 PM	ONE HOUR	14:45	16:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	1004	100.000
B - A12 South West		ONE HOUR	✓	1621	100.000
C - A1152 East		ONE HOUR	✓	921	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	869	133
	B - A12 South West	1002	96	523
	C - A1152 East	154	762	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	6	2
	B - A12 South West	5	8	9
	C - A1152 East	3	8	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.62	5.25	1.6	2.2	A	921	1382
B - A12 South West	0.82	8.87	4.3	16.9	A	1487	2231
C - A1152 East	0.75	10.42	2.9	10.1	B	845	1268

#### Main Results for each time segment

##### 14:45 - 15:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	756	189	468	1935	0.391	753	869	0.0	0.6	3.039	A
B - A12 South West	1220	305	121	2227	0.548	1215	1295	0.0	1.2	3.537	A
C - A1152 East	694	173	726	1546	0.448	690	495	0.0	0.8	4.189	A

##### 15:00 - 15:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	902	226	560	1875	0.481	901	1039	0.6	0.9	3.692	A
B - A12 South West	1457	364	145	2211	0.659	1454	1550	1.2	1.9	4.738	A
C - A1152 East	828	207	868	1468	0.564	826	593	0.8	1.3	5.596	A

##### 15:15 - 15:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1105	276	683	1793	0.616	1102	1269	0.9	1.6	5.190	A
B - A12 South West	1785	446	177	2190	0.815	1775	1893	1.9	4.2	8.504	A
C - A1152 East	1014	254	1062	1360	0.746	1008	724	1.3	2.8	10.047	B

## 15:30 - 15:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	1105	276	687	1791	0.617	1105	1275	1.6	1.6	5.246	A
B - A12 South West	1785	446	178	2189	0.815	1784	1901	4.2	4.3	8.866	A
C - A1152 East	1014	254	1065	1359	0.746	1014	727	2.8	2.9	10.416	B

## 15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	902	226	564	1872	0.482	905	1048	1.6	0.9	3.733	A
B - A12 South West	1457	364	146	2210	0.659	1466	1560	4.3	2.0	4.899	A
C - A1152 East	828	207	872	1465	0.565	834	597	2.9	1.3	5.759	A

## 16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	756	189	471	1933	0.391	757	874	0.9	0.6	3.063	A
B - A12 South West	1220	305	122	2226	0.548	1223	1303	2.0	1.2	3.601	A
C - A1152 East	694	173	729	1544	0.449	696	498	1.3	0.8	4.251	A

## Queue Variation Results for each time segment

## 14:45 - 15:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.64	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.20	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.81	0.55	1.00	1.40	1.45			N/A	N/A

## 15:00 - 15:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.92	0.06	0.76	1.68	2.18			N/A	N/A
B - A12 South West	1.90	0.04	0.43	5.14	8.78			N/A	N/A
C - A1152 East	1.28	0.05	0.59	2.98	4.51			N/A	N/A

## 15:15 - 15:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.58	0.03	0.26	1.58	1.58			N/A	N/A
B - A12 South West	4.19	0.03	0.30	4.19	16.90			N/A	N/A
C - A1152 East	2.81	0.03	0.29	2.81	10.07			N/A	N/A

## 15:30 - 15:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.60	0.03	0.26	1.60	1.60			N/A	N/A
B - A12 South West	4.30	0.03	0.27	4.30	5.19			N/A	N/A
C - A1152 East	2.88	0.03	0.27	2.88	4.53			N/A	N/A

## 15:45 - 16:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.94	0.23	0.99	1.43	1.43			N/A	N/A
B - A12 South West	1.96	0.06	0.87	4.94	7.38			N/A	N/A
C - A1152 East	1.32	0.06	0.85	2.86	4.00			N/A	N/A

## 16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.65	0.06	0.67	1.37	1.46			N/A	N/A
B - A12 South West	1.22	0.04	0.39	3.12	5.51			N/A	N/A
C - A1152 East	0.82	0.04	0.40	1.90	3.08			N/A	N/A

## 2034 Operational Led, 5-6 PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A12 North - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J28	A12 / A1152 Woods Lane	Standard Roundabout	A, C, B	7.41	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)	Run automatically
D35	2034 Operational Led	5-6 PM	ONE HOUR	16:45	18:15	15	✓

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	904	100.000
B - A12 South West		ONE HOUR	✓	1620	100.000
C - A1152 East		ONE HOUR	✓	1051	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	2	799	103
	B - A12 South West	989	90	541
	C - A1152 East	140	906	5

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A - A12 North	B - A12 South West	C - A1152 East
From	A - A12 North	0	2	0
	B - A12 South West	2	2	3
	C - A1152 East	1	3	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.53	4.09	1.1	1.5	A	829	1244
B - A12 South West	0.78	7.04	3.4	8.7	A	1486	2230
C - A1152 East	0.78	10.79	3.4	13.6	B	964	1446

#### Main Results for each time segment

##### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	680	170	477	2020	0.337	678	849	0.0	0.5	2.681	A
B - A12 South West	1220	305	110	2329	0.524	1215	1346	0.0	1.1	3.220	A
C - A1152 East	791	198	669	1662	0.476	788	487	0.0	0.9	4.102	A

##### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	813	203	571	1959	0.415	812	1015	0.5	0.7	3.137	A
B - A12 South West	1456	364	132	2314	0.629	1454	1611	1.1	1.7	4.172	A
C - A1152 East	945	236	800	1589	0.594	943	582	0.9	1.4	5.547	A

##### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North											
B - A12 South West											
C - A1152 East											

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	995	249	697	1877	0.530	993	1240	0.7	1.1	4.069	A
B - A12 South West	1784	446	161	2295	0.777	1777	1968	1.7	3.4	6.861	A
C - A1152 East	1157	289	979	1490	0.776	1150	712	1.4	3.3	10.343	B

## 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	995	249	700	1875	0.531	995	1245	1.1	1.1	4.091	A
B - A12 South West	1784	446	162	2294	0.778	1783	1975	3.4	3.4	7.041	A
C - A1152 East	1157	289	981	1489	0.777	1157	714	3.3	3.4	10.791	B

## 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	813	203	574	1956	0.415	814	1022	1.1	0.7	3.158	A
B - A12 South West	1456	364	133	2313	0.629	1463	1622	3.4	1.7	4.266	A
C - A1152 East	945	236	803	1588	0.595	952	586	3.4	1.5	5.730	A

## 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	680	170	480	2018	0.337	681	853	0.7	0.5	2.694	A
B - A12 South West	1220	305	111	2329	0.524	1222	1354	1.7	1.1	3.259	A
C - A1152 East	791	198	672	1660	0.477	793	489	1.5	0.9	4.163	A

## Queue Variation Results for each time segment

## 16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.51	0.51	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.09	0.55	1.00	1.40	1.45			N/A	N/A
C - A1152 East	0.90	0.55	1.00	1.40	1.45			N/A	N/A

## 17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.70	0.08	0.78	1.39	1.47			N/A	N/A
B - A12 South West	1.68	0.04	0.44	4.47	7.44			N/A	N/A
C - A1152 East	1.44	0.05	0.49	3.65	5.65			N/A	N/A

## 17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.12	0.03	0.26	1.12	1.12			N/A	N/A
B - A12 South West	3.38	0.03	0.28	3.38	8.71			N/A	N/A
C - A1152 East	3.30	0.03	0.30	3.30	13.62			N/A	N/A

## 17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	1.13	0.03	0.27	1.13	1.33			N/A	N/A
B - A12 South West	3.43	0.03	0.27	3.43	3.43			N/A	N/A
C - A1152 East	3.39	0.03	0.28	3.39	6.03			N/A	N/A

## 17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.71	0.55	1.00	1.40	1.45			N/A	N/A
B - A12 South West	1.72	0.07	1.08	3.87	5.45			N/A	N/A
C - A1152 East	1.49	0.06	0.79	3.54	5.12			N/A	N/A

## 18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.51	0.05	0.52	1.31	1.40			N/A	N/A
B - A12 South West	1.11	0.04	0.44	2.71	4.25			N/A	N/A
C - A1152 East	0.92	0.04	0.38	2.23	3.84			N/A	N/A

# Updated 2034 flows

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**V17 UPDATES TO 2034 CORE  
ASSESSMENT FLOWS**



<b>Junctions 9</b>
<b>ARCADY 9 - Roundabout Module</b>
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Filename: 2020.09.22\_J6\_Miti\_Model\_EY\_v17.j9  
 Path: C:\Users\UKVXG007\Desktop\SZC\v17 Core Assessment (2034 Update)\Mitigation Models\J6\_miti\Model  
 Report generation date: 17/12/2020 18:18:32

- «2023 Early Years , 6-7 AM
  - »Junction Network
  - »Arms
  - »Traffic Demand
  - »Origin-Destination Data
  - »Vehicle Mix
  - »Results

Summary of junction performance

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
2023 Early Years																									
A - A12 North	0.5	2.1	5.13	0.33	A	2.8	12.3	14.65	0.74	B	4.3	22.3	20.73	0.82	C	3.4	16.3	16.30	0.78	C	3.0	13.3	14.51	0.75	B
B - A1094	0.2	0.5	4.17	0.15	A	0.7	2.9	7.20	0.42	A	0.7	2.9	7.55	0.41	A	1.0	2.8	9.06	0.51	A	1.9	5.9	12.80	0.67	B
C - A12 South	0.0	-1	0.00	0.00	A	0.0	-1	0.00	0.00	A	0.0	-1	0.00	0.00	A	0.0	-1	0.00	0.00	A	0.0	-1	0.00	0.00	A
D - Old A12 (Farnham)	0.7	2.5	4.75	0.41	A	5.6	28.7	19.43	0.86	C	5.0	26.2	18.31	0.84	C	3.9	18.8	14.10	0.80	B	4.9	25.2	16.78	0.84	C

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.

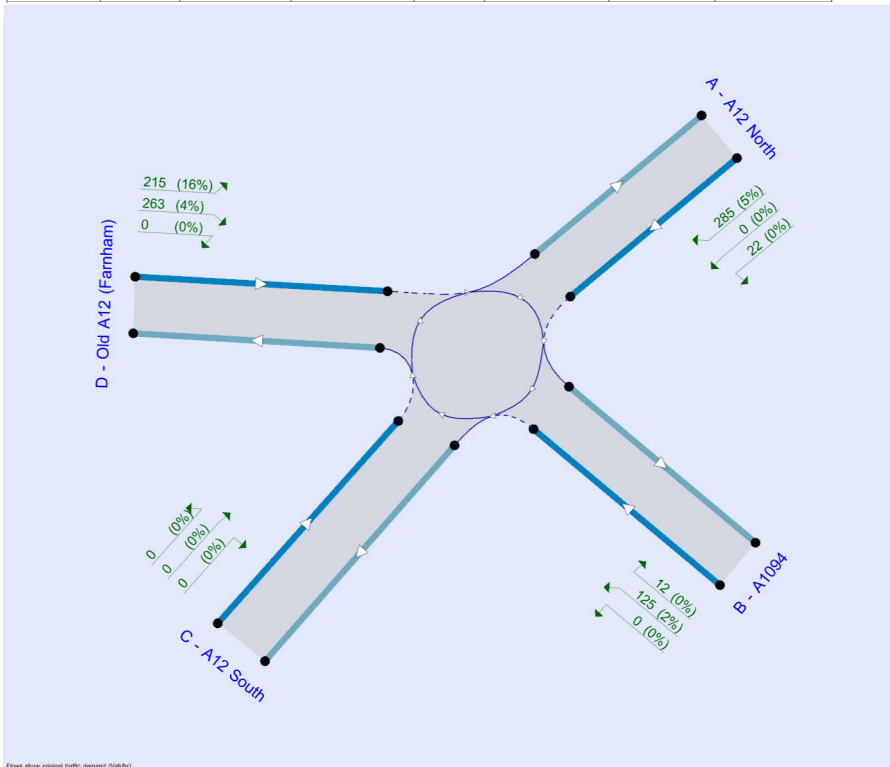
File summary

File Description

Title	A12 / A1094
Location	52.191814°, 1.468510°
Site number	6
Date	22/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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	mph	Veh	Veh	perHour	s	-Min	perMin





The junction diagram reflects the last run of Junctions.

#### Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

#### Analysis Set Details

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

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2023 Early Years	6-7 AM	ONE HOUR	05:45	07:15	15	✓

## 2023 Early Years , 6-7 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J6	A12 / A1094	Standard Roundabout	A, B, C, D	4.79	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description
A	A12 North	
B	A1094	
C	A12 South	
D	Old A12 (Farnham)	

#### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	Γ - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A12 North	3.65	4.00	10.0	30.1	70.0	31.0	
B - A1094	3.70	4.00	10.0	22.3	70.0	39.0	
C - A12 South	3.70	7.20	14.1	32.6	70.0	31.0	
D - Old A12 (Farnham)	3.60	5.40	10.0	23.1	70.0	37.0	

#### Slope / Intercept / Capacity

##### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.433	1217
B - A1094	0.416	1173
C - A12 South	0.515	1738
D - Old A12 (Farnham)	0.456	1411

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

### Traffic Demand

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	307	100.000
B - A1094		ONE HOUR	✓	137	100.000
C - A12 South		ONE HOUR	✓	0	100.000
D - Old A12 (Farnham)		ONE HOUR	✓	478	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - A1094	C - A12 South	D - Old A12 (Farnham)
From	A - A12 North	0	22	0	285
	B - A1094	12	0	0	125
	C - A12 South	0	0	0	0
	D - Old A12 (Farnham)	215	263	0	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - A1094	C - A12 South	D - Old A12 (Farnham)
From	A - A12 North	0	0	0	5
	B - A1094	0	0	0	2
	C - A12 South	0	0	0	0
	D - Old A12 (Farnham)	16	4	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.33	5.13	0.5	2.1	A	282	423
B - A1094	0.15	4.17	0.2	0.5	A	126	189
C - A12 South	0.00	0.00	0.0	-1	A	0	0

D - Old A12 (Farnham)	0.41	4.75	0.7	2.5	A	439	658
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Main Results for each time segment

05:45 - 06:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	231	58	197	1079	0.214	230	170	0.0	0.3	4.235	A
B - A1094	103	26	214	1056	0.098	103	214	0.0	0.1	3.773	A
C - A12 South	0	0	316	1569	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	360	90	9	1286	0.280	358	307	0.0	0.4	3.873	A

06:00 - 06:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	276	69	236	1062	0.260	276	204	0.3	0.3	4.574	A
B - A1094	123	31	256	1038	0.119	123	256	0.1	0.1	3.934	A
C - A12 South	0	0	379	1535	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	430	107	11	1285	0.334	429	368	0.4	0.5	4.203	A

06:15 - 06:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	338	85	289	1040	0.325	337	250	0.3	0.5	5.124	A
B - A1094	151	38	313	1013	0.149	151	313	0.1	0.2	4.173	A
C - A12 South	0	0	464	1490	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	526	132	13	1284	0.410	526	451	0.5	0.7	4.738	A

06:30 - 06:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	338	85	290	1039	0.325	338	250	0.5	0.5	5.132	A
B - A1094	151	38	314	1013	0.149	151	314	0.2	0.2	4.174	A
C - A12 South	0	0	465	1489	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	526	132	13	1284	0.410	526	451	0.7	0.7	4.747	A

06:45 - 07:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	276	69	237	1062	0.260	276	204	0.5	0.4	4.587	A
B - A1094	123	31	257	1038	0.119	123	257	0.2	0.1	3.939	A
C - A12 South	0	0	380	1535	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	430	107	11	1285	0.334	430	369	0.7	0.5	4.215	A

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	231	58	198	1079	0.214	231	171	0.4	0.3	4.252	A
B - A1094	103	26	215	1056	0.098	103	215	0.1	0.1	3.782	A
C - A12 South	0	0	318	1568	0.000	0	0	0.0	0.0	0.000	A
D - Old A12 (Farnham)	360	90	9	1286	0.280	360	309	0.5	0.4	3.889	A

Queue Variation Results for each time segment

05:45 - 06:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - A1094	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

06:00 - 06:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B - A1094	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.50	0.00	0.00	0.50	0.50			N/A	N/A

06:15 - 06:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.48	0.03	0.25	0.48	0.48			N/A	N/A
B - A1094	0.17	0.03	0.26	0.46	0.46			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.69	0.03	0.25	0.69	0.69			N/A	N/A

06:30 - 06:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.48	0.03	0.30	1.36	2.13			N/A	N/A
B - A1094	0.17	0.03	0.25	0.45	0.48			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.69	0.03	0.28	0.69	2.53			N/A	N/A

06:45 - 07:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B - A1094	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.51	0.51	1.00	1.40	1.45			N/A	N/A

07:00 - 07:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B - A1094	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - A12 South	0.00	0.00	0.00	0.00	0.00			N/A	N/A
D - Old A12 (Farnham)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

<b>Junctions 9</b>
<b>ARCADY 9 - Roundabout Module</b>
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Filename: 2020.09.22\_J6\_Miti\_Model\_PC\_OP\_v17.j9

Path: C:\Users\UKVXG007\Desktop\SZC\v17 Core Assessment (2034 Update)\Mitigation Models\J6\_miti\Model

Report generation date: 17/12/2020 18:21:11

#### «2034 Operational Led, 8-9 AM

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

#### Summary of junction performance

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
<b>2028 Peak Construction</b>																									
A - A12 North	0.2	0.5	1.85	0.15	A	0.4	1.4	2.23	0.29	A	0.6	2.7	2.60	0.37	A	0.6	2.7	2.63	0.39	A	0.5	1.8	2.28	0.31	A
B - A1094	0.2	0.5	4.10	0.15	A	0.6	2.8	6.37	0.38	A	0.6	2.8	7.05	0.39	A	1.1	2.8	9.16	0.52	A	1.2	2.4	8.80	0.54	A
C - A12 South	0.3	1.4	2.82	0.26	A	1.2	1.5	4.58	0.54	A	2.0	3.4	6.47	0.67	A	2.4	4.6	7.62	0.71	A	2.1	3.7	6.65	0.68	A
D - Old A12 (Farnham)	0.0	0.5	4.16	0.02	A	0.0	0.5	5.51	0.04	A	0.0	~1	0.00	0.00	A	0.0	0.5	5.35	0.01	A	0.0	0.5	4.29	0.01	A
<b>2034 Operational Led</b>																									
A - A12 North	0.2	0.5	1.86	0.15	A	0.4	1.5	2.25	0.30	A	0.6	2.6	2.52	0.36	A	0.6	2.8	2.58	0.38	A	0.4	1.6	2.23	0.30	A
B - A1094	0.2	0.5	4.14	0.15	A	0.6	2.8	6.39	0.38	A	0.6	2.7	6.86	0.37	A	1.1	2.8	9.14	0.53	A	0.9	2.7	7.49	0.47	A
C - A12 South	0.3	1.3	2.76	0.24	A	1.2	1.5	4.57	0.54	A	2.0	3.4	6.49	0.67	A	2.3	4.2	7.28	0.70	A	2.0	3.6	6.55	0.67	A
D - Old A12 (Farnham)	0.0	0.5	4.10	0.02	A	0.0	0.5	5.48	0.04	A	0.0	~1	0.00	0.00	A	0.0	0.5	5.29	0.01	A	0.0	0.5	4.29	0.01	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.

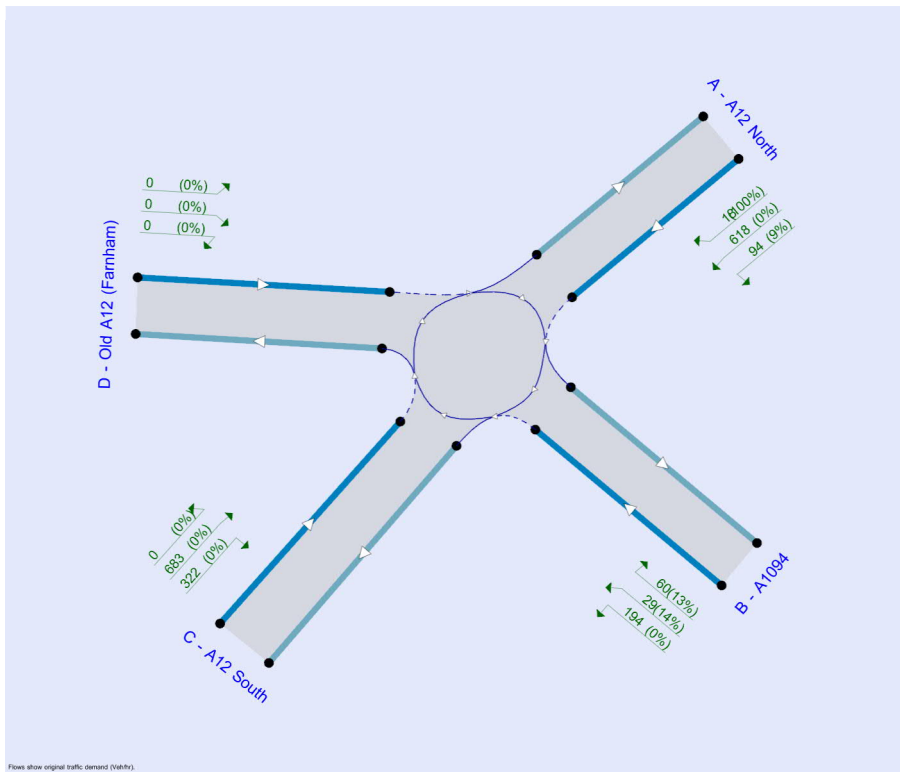
#### File summary

##### File Description

Title	A12 / A1094
Location	52.191814°, 1.468510°
Site number	6
Date	22/08/2019
Version	
Status	(new file)
Identifier	
Client	
Job number	
Enumerator	CORPINJV01568
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	mph	Veh	Veh	perHour	s	-Min	perMin



**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queuing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

**Analysis Set Details**

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

**Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓

## 2034 Operational Led, 8-9 AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

### Junction Network

#### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J6	A12 / A1094	Standard Roundabout	A, B, C, D	5.08	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description
A	A12 North	
B	A1094	
C	A12 South	
D	Old A12 (Farnham)	

#### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	Γ - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A12 North	7.30	8.40	25.1	30.1	70.0	31.0	
B - A1094	3.70	4.00	10.0	22.3	70.0	39.0	
C - A12 South	3.70	7.20	14.1	32.6	70.0	31.0	
D - Old A12 (Farnham)	3.60	7.20	11.3	23.1	70.0	37.0	

#### Slope / Intercept / Capacity

##### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 North	0.640	2537
B - A1094	0.416	1173
C - A12 South	0.515	1738
D - Old A12 (Farnham)	0.486	1602

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

### Traffic Demand

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

#### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A12 North		ONE HOUR	✓	729	100.000
B - A1094		ONE HOUR	✓	283	100.000
C - A12 South		ONE HOUR	✓	1004	100.000
D - Old A12 (Farnham)		ONE HOUR	✓	0	100.000

### Origin-Destination Data

#### Demand (Veh/hr)

		To			
		A - A12 North	B - A1094	C - A12 South	D - Old A12 (Farnham)
From	A - A12 North	0	94	618	18
	B - A1094	60	0	194	29
	C - A12 South	683	322	0	0
	D - Old A12 (Farnham)	0	0	0	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To			
		A - A12 North	B - A1094	C - A12 South	D - Old A12 (Farnham)
From	A - A12 North	0	9	0	100
	B - A1094	13	0	0	14
	C - A12 South	0	0	0	0
	D - Old A12 (Farnham)	0	0	0	0

### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 North	0.36	2.52	0.6	2.6	A	669	1004
B - A1094	0.37	6.86	0.6	2.7	A	260	390
C - A12 South	0.67	6.49	2.0	3.4	A	921	1382

D - Old A12 (Farnham)	0.00	0.00	0.0	-1	A	0	0
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## Main Results for each time segment

## 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	549	137	241	2300	0.239	548	557	0.0	0.3	2.054	A
B - A1094	213	53	477	928	0.230	212	311	0.0	0.3	5.019	A
C - A12 South	756	189	80	1685	0.449	753	609	0.0	0.8	3.848	A
D - Old A12 (Farnham)	0	0	798	1211	0.000	0	35	0.0	0.0	0.000	A

## 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	656	164	289	2270	0.289	655	667	0.3	0.4	2.229	A
B - A1094	255	64	571	890	0.286	254	373	0.3	0.4	5.661	A
C - A12 South	903	226	96	1675	0.539	901	729	0.8	1.2	4.647	A
D - Old A12 (Farnham)	0	0	956	1134	0.000	0	42	0.0	0.0	0.000	A

## 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	353	2231	0.360	802	816	0.4	0.6	2.519	A
B - A1094	312	78	699	837	0.373	311	456	0.4	0.6	6.835	A
C - A12 South	1106	276	118	1660	0.666	1102	893	1.2	2.0	6.415	A
D - Old A12 (Farnham)	0	0	1169	1030	0.000	0	51	0.0	0.0	0.000	A

## 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	803	201	354	2230	0.360	803	818	0.6	0.6	2.522	A
B - A1094	312	78	700	837	0.373	312	457	0.6	0.6	6.857	A
C - A12 South	1106	276	118	1660	0.666	1106	894	2.0	2.0	6.487	A
D - Old A12 (Farnham)	0	0	1172	1028	0.000	0	52	0.0	0.0	0.000	A

## 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	656	164	290	2269	0.289	656	670	0.6	0.4	2.233	A
B - A1094	255	64	572	889	0.286	255	374	0.6	0.4	5.686	A
C - A12 South	903	226	97	1674	0.539	906	731	2.0	1.2	4.705	A
D - Old A12 (Farnham)	0	0	960	1132	0.000	0	42	0.0	0.0	0.000	A

## 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A - A12 North	549	137	243	2299	0.239	549	561	0.4	0.3	2.059	A
B - A1094	213	53	479	928	0.230	214	313	0.4	0.3	5.047	A
C - A12 South	756	189	81	1685	0.449	757	612	1.2	0.8	3.887	A
D - Old A12 (Farnham)	0	0	803	1209	0.000	0	35	0.0	0.0	0.000	A

## Queue Variation Results for each time segment

## 07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B - A1094	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A12 South	0.81	0.55	1.00	1.40	1.45			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

## 08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B - A1094	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - A12 South	1.16	0.06	0.78	2.44	3.42			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

## 08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.56	0.03	0.25	0.56	0.56			N/A	N/A
B - A1094	0.59	0.03	0.25	0.59	0.59			N/A	N/A
C - A12 South	1.95	0.03	0.27	1.95	1.95			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

## 08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.56	0.03	0.30	1.37	2.64			N/A	N/A
B - A1094	0.59	0.03	0.29	1.30	2.75			N/A	N/A
C - A12 South	1.97	0.03	0.26	1.97	1.97			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

## 08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.41	0.00	0.00	0.41	0.41			N/A	N/A
B - A1094	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C - A12 South	1.18	0.12	1.07	1.89	2.47			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A



09:00 - 09:15

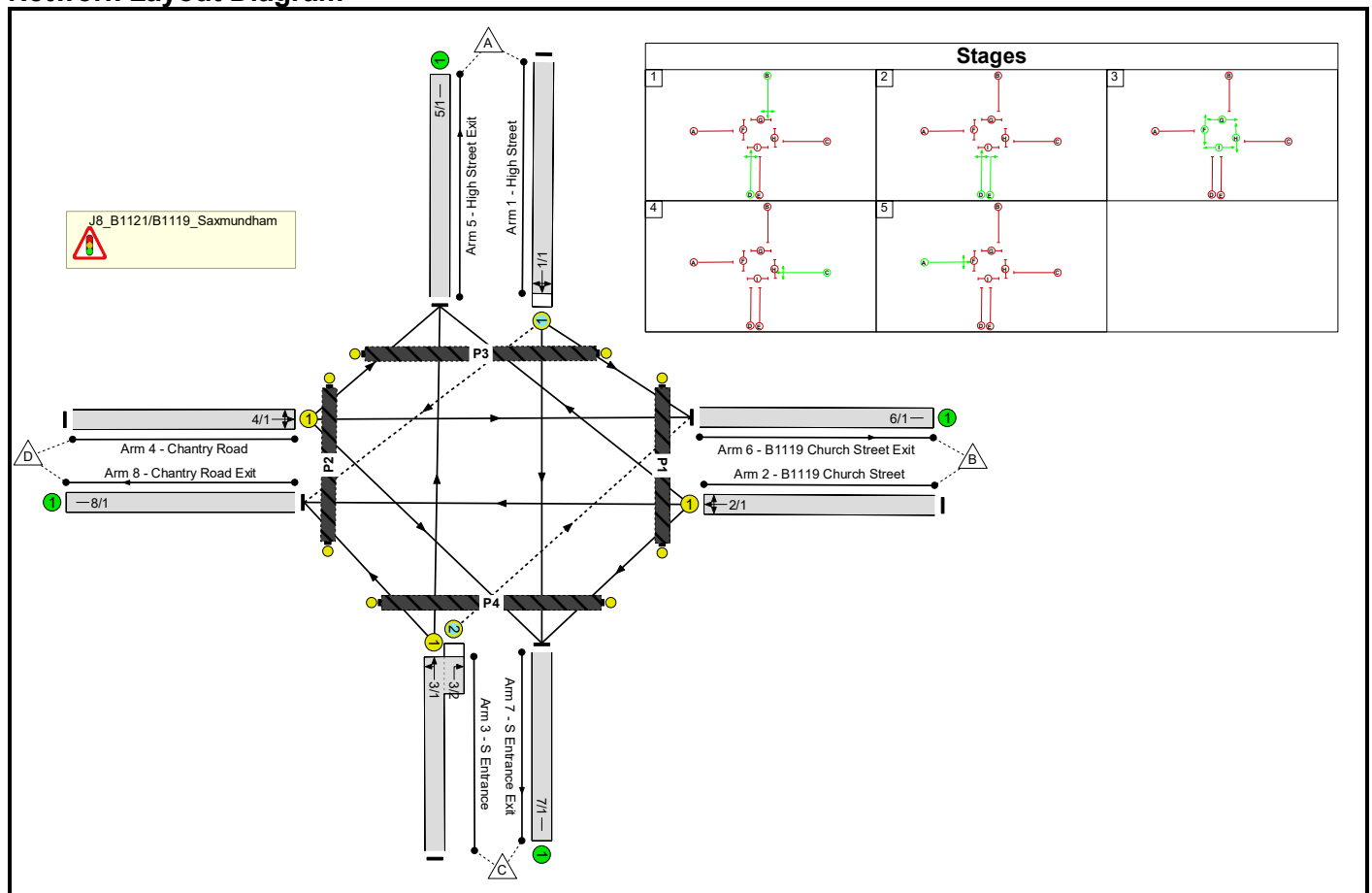
Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - A12 North	0.31	0.00	0.00	0.31	0.31			N/A	N/A
B - A1094	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - A12 South	0.82	0.06	0.67	1.47	1.91			N/A	N/A
D - Old A12 (Farnham)	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Full Input Data And Results  
**Full Input Data And Results**

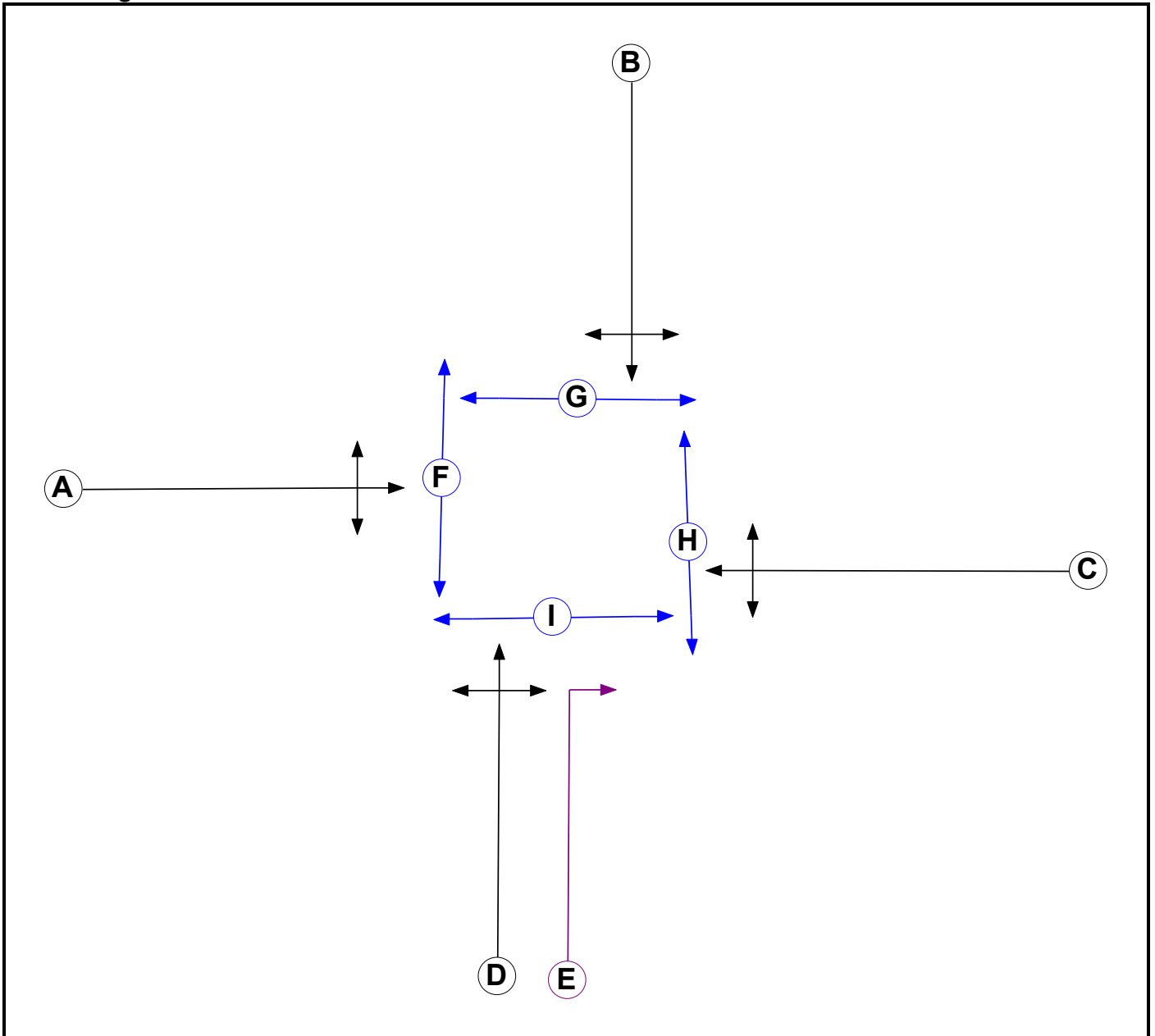
**User and Project Details**

<b>Project:</b>	<b>Sizewell C - Transport Planning</b>
<b>Title:</b>	<b>Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>
<b>Location:</b>	Saxmundham, Suffolk
<b>Additional detail:</b>	
<b>File name:</b>	J8_FY_Model_v17.lsg3x
<b>Author:</b>	
<b>Company:</b>	WSP UK
<b>Address:</b>	62-64 Hills Road, Cambridge

**Network Layout Diagram**



**Phase Diagram**



**Phase Input Data**

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Ind. Arrow	D	4	4
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5

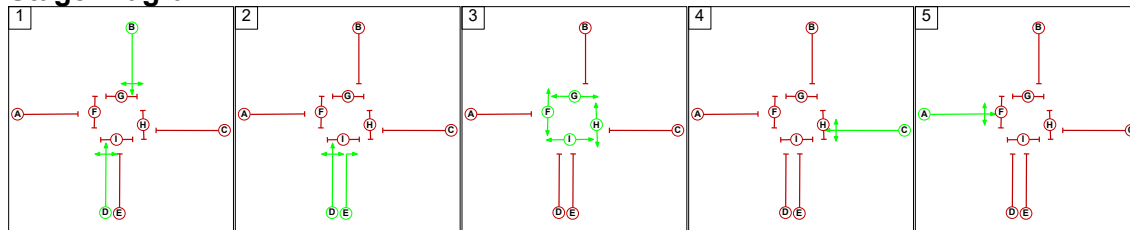
### Phase Intergrens Matrix

		Starting Phase								
		A	B	C	D	E	F	G	H	I
Terminating Phase	A		7	6	6	6	10	10	10	10
	B	5		5	-	6	10	10	10	10
	C	6	5		5	5	10	10	10	10
	D	6	-	5		-	10	10	10	10
	E	6	6	5	-		10	10	10	10
	F	7	7	7	7	7		-	-	-
	G	5	5	5	5	5	-		-	-
	H	5	5	5	5	5	-	-		-
	I	5	5	5	5	5	-	-	-	

### Phases in Stage

Stage No.	Phases in Stage
1	B D
2	D E
3	F G H I
4	C
5	A

### Stage Diagram



### Phase Delays

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

### Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1		6	10	5	6
	2	6		10	5	6
	3	7	7		7	7
	4	5	5	10		6
	5	7	6	10	6	

Full Input Data And Results

**Give-Way Lane Input Data**

Junction: J8_B1121/B1119_Saxmundham											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (High Street)	8/1 (Right)	1439	0	3/1	1.09	All	1.00	-	0.50	1	1.00
3/2 (S Entrance)	6/1 (Right)	1439	0	1/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	1.00	-	0.50	1	1.00

Full Input Data And Results

**Lane Input Data**

Junction: J8_B1121/B1119_Saxmundham												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (High Street)	O	B	2	3	25.8	Geom	-	3.69	0.00	Y	Arm 6 Left	4.68
											Arm 7 Ahead	Inf
											Arm 8 Right	6.84
2/1 (B1119 Church Street)	U	C	2	3	31.4	User	1800	-	-	-	-	-
3/1 (S Entrance)	U	D	2	3	23.6	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	8.76
3/2 (S Entrance)	O	D E	2	3	2.8	Geom	-	3.00	0.00	N	Arm 6 Right	15.64
4/1 (Chantry Road)	U	A	2	3	17.4	Geom	-	2.93	0.00	Y	Arm 5 Left	3.88
											Arm 6 Ahead	Inf
											Arm 7 Right	11.42
5/1 (High Street Exit)	U		2	3	25.8	Inf	-	-	-	-	-	-
6/1 (B1119 Church Street Exit)	U		2	3	31.4	Inf	-	-	-	-	-	-
7/1 (S Entrance Exit)	U		2	3	23.6	Inf	-	-	-	-	-	-
8/1 (Chantry Road Exit)	U		2	3	17.4	Inf	-	-	-	-	-	-

Full Input Data And Results

**Traffic Flow Groups**

Flow Group	Start Time	End Time	Duration	Formula
1: '17BY_6-7AM'	06:00	07:00	01:00	
2: '17BY_7-8AM'	07:00	08:00	01:00	
3: '17BY_8-9AM'	08:00	09:00	01:00	
4: '17BY_3-4PM'	15:00	16:00	01:00	
5: '17BY_5-6PM'	17:00	18:00	01:00	
6: '23RC_6-7AM'	06:00	07:00	01:00	
7: '23RC_7-8AM'	07:00	08:00	01:00	
8: '23RC_8-9AM'	08:00	09:00	01:00	
9: '23RC_3-4PM'	15:00	16:00	01:00	
10: '23RC_5-6PM'	17:00	18:00	01:00	
11: '23EY_6-7AM'	06:00	07:00	01:00	
12: '23EY_7-8AM'	07:00	08:00	01:00	
13: '23EY_8-9AM'	08:00	09:00	01:00	
14: '23EY_3-4PM'	15:00	16:00	01:00	
15: '23EY_5-6PM'	17:00	18:00	01:00	
16: '28RC_6-7AM'	06:00	07:00	01:00	
17: '28RC_7-8AM'	07:00	08:00	01:00	
18: '28RC_8-9AM'	08:00	09:00	01:00	
19: '28RC_3-4PM'	15:00	16:00	01:00	
20: '28RC_5-6PM'	17:00	18:00	01:00	
21: '28PC_6-7AM'	06:00	07:00	01:00	
22: '28PC_7-8AM'	07:00	08:00	01:00	
23: '28PC_8-9AM'	08:00	09:00	01:00	
24: '28PC_3-4PM'	15:00	16:00	01:00	
25: '28PC_5-6PM'	17:00	18:00	01:00	
26: '34RC_6-7AM'	06:00	07:00	01:00	
27: '34RC_7-8AM'	07:00	08:00	01:00	
28: '34RC_8-9AM'	08:00	09:00	01:00	
29: '34RC_3-4PM'	15:00	16:00	01:00	
30: '34RC_5-6PM'	17:00	18:00	01:00	
31: '34OP_6-7AM'	06:00	07:00	01:00	
32: '34OP_7-8AM'	07:00	08:00	01:00	
33: '34OP_8-9AM'	08:00	09:00	01:00	
34: '34OP_3-4PM'	15:00	16:00	01:00	
35: '34OP_5-6PM'	17:00	18:00	01:00	

## Full Input Data And Results

**Scenario 1: 'Base Year 6-7AM'** (FG1: '17BY\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					Tot.
	A	B	C	D	Tot.	
Origin	A	0	17	23	2	42
	B	9	0	17	12	38
	C	26	24	0	6	56
	D	3	29	4	0	36
	Tot.	38	70	44	20	172



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 1: Base Year 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	42
2/1	38
3/1 (with short)	56(In) 32(Out)
3/2 (short)	24
4/1	36
5/1	38
6/1	70
7/1	44
8/1	20

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	40.5 %	1741	1741
Arm 7 Ahead				Inf	54.8 %			
Arm 8 Right				6.84	4.8 %			
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	81.3 %	1855	1855
Arm 8 Left				8.76	18.8 %			
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	8.3 %	1823	1823
Arm 6 Ahead				Inf	80.6 %			
Arm 7 Right				11.42	11.1 %			
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 2: 'Base Year 7-8AM'** (FG2: '17BY\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	43	75	6	124	
B	39	0	39	43	121	
C	46	52	0	12	110	
D	12	84	25	0	121	
Tot.	97	179	139	61	476	

**Traffic Lane Flows**

Lane	Scenario 2: Base Year 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	124
2/1	121
3/1 (with short)	110(In) 58(Out)
3/2 (short)	52
4/1	121
5/1	97
6/1	179
7/1	139
8/1	61

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	34.7 %	1769	1769
				Arm 7 Ahead	Inf	60.5 %		
				Arm 8 Right	6.84	4.8 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	79.3 %	1849	1849
				Arm 8 Left	8.76	20.7 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	9.9 %	1791	1791
				Arm 6 Ahead	Inf	69.4 %		
				Arm 7 Right	11.42	20.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 3: 'Base Year 8-9AM'** (FG3: '17BY\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	81	75	7	163
	B	86	0	78	64	228
	C	126	69	0	40	235
	D	30	113	42	0	185
	Tot.	242	263	195	111	811

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 3: Base Year 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	163
2/1	228
3/1 (with short)	235(In) 166(Out)
3/2 (short)	69
4/1	185
5/1	242
6/1	263
7/1	195
8/1	111

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	49.7 %	1698	1698
Arm 7 Ahead				Inf	46.0 %			
Arm 8 Right				6.84	4.3 %			
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	75.9 %	1839	1839
Arm 8 Left				8.76	24.1 %			
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	16.2 %	1746	1746
Arm 6 Ahead				Inf	61.1 %			
Arm 7 Right				11.42	22.7 %			
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 4: 'Base Year 3-4PM'** (FG4: '17BY\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	133	78	15	226	
B	131	0	107	123	361	
C	94	104	0	53	251	
D	15	92	27	0	134	
Tot.	240	329	212	191	972	

**Traffic Lane Flows**

Lane	Scenario 4: Base Year 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	226
2/1	361
3/1 (with short)	251(In) 147(Out)
3/2 (short)	104
4/1	134
5/1	240
6/1	329
7/1	212
8/1	191

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	58.8 %	1649	1649
				Arm 7 Ahead	Inf	34.5 %		
				Arm 8 Right	6.84	6.6 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	63.9 %	1804	1804
				Arm 8 Left	8.76	36.1 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	11.2 %	1784	1784
				Arm 6 Ahead	Inf	68.7 %		
				Arm 7 Right	11.42	20.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 5: 'Base Year 5-6PM'** (FG5: '17BY\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	124	105	11	240	
B	123	0	100	139	362	
C	102	97	0	35	234	
D	7	114	29	0	150	
Tot.	232	335	234	185	986	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 5: Base Year 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	240
2/1	362
3/1 (with short)	234(In) 137(Out)
3/2 (short)	97
4/1	150
5/1	232
6/1	335
7/1	234
8/1	185

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	51.7 %	1688	1688
Arm 7 Ahead				Inf	43.8 %			
Arm 8 Right				6.84	4.6 %			
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	74.5 %	1835	1835
Arm 8 Left				8.76	25.5 %			
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	4.7 %	1829	1829
Arm 6 Ahead				Inf	76.0 %			
Arm 7 Right				11.42	19.3 %			
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 6: '2023 Reference Case 6-7AM'** (FG6: '23RC\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	65	26	2	93	
B	23	0	20	13	56	
C	27	27	0	7	61	
D	3	33	4	0	40	
Tot.	53	125	50	22	250	

**Traffic Lane Flows**

Lane	Scenario 6: 2023 Reference Case 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	93
2/1	56
3/1 (with short)	61(In) 34(Out)
3/2 (short)	27
4/1	40
5/1	53
6/1	125
7/1	50
8/1	22



**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	69.9 %	1615	1615
				Arm 7 Ahead	Inf	28.0 %		
				Arm 8 Right	6.84	2.2 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	79.4 %	1850	1850
				Arm 8 Left	8.76	20.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	7.5 %	1831	1831
				Arm 6 Ahead	Inf	82.5 %		
				Arm 7 Right	11.42	10.0 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 7: '2023 Reference Case 7-8AM' (FG7: '23RC\_7-8AM', Plan 1: '5 stages')**

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	54	75	7	136
	B	74	0	40	48	162
	C	47	64	0	13	124
	D	13	94	28	0	135
	Tot.	134	212	143	68	557

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 7: 2023 Reference Case 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	136
2/1	162
3/1 (with short)	124(In) 60(Out)
3/2 (short)	64
4/1	135
5/1	134
6/1	212
7/1	143
8/1	68

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	39.7 %	1743	1743
				Arm 7 Ahead	Inf	55.1 %		
				Arm 8 Right	6.84	5.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	78.3 %	1846	1846
				Arm 8 Left	8.76	21.7 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	9.6 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	69.6 %	1792	1792
				Arm 7 Right	11.42	20.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 8: '2023 Reference Case 8-9AM'** (FG8: '23RC\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	104	97	8	209	
B	152	0	75	71	298	
C	129	94	0	44	267	
D	34	126	47	0	207	
Tot.	315	324	219	123	981	

**Traffic Lane Flows**

Lane	Scenario 8: 2023 Reference Case 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	209
2/1	298
3/1 (with short)	267(In) 173(Out)
3/2 (short)	94
4/1	207
5/1	315
6/1	324
7/1	219
8/1	123

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	49.8 %	1699	1699
				Arm 7 Ahead	Inf	46.4 %		
				Arm 8 Right	6.84	3.8 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	74.6 %	1835	1835
				Arm 8 Left	8.76	25.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	16.4 %	1745	1745
				Arm 6 Ahead	Inf	60.9 %		
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 9: '2023 Reference Case 3-4PM'** (FG9: '23RC\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	139	84	17	240
	B	160	0	112	137	409
	C	101	135	0	58	294
	D	16	102	30	0	148
	Tot.	277	376	226	212	1091

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 9: 2023 Reference Case 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	240
2/1	409
3/1 (with short)	294(In) 159(Out)
3/2 (short)	135
4/1	148
5/1	277
6/1	376
7/1	226
8/1	212

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	57.9 %	1652	1652
				Arm 7 Ahead	Inf	35.0 %		
				Arm 8 Right	6.84	7.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow					1800	1800	
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	63.5 %	1802	1802
				Arm 8 Left	8.76	36.5 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	10.8 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	68.9 %	1786	1786
				Arm 7 Right	11.42	20.3 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	

Full Input Data And Results

**Scenario 10: '2023 Reference Case 5-6PM'** (FG10: '23RC\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	149	105	12	266	
B	170	0	107	155	432	
C	127	111	0	38	276	
D	8	127	32	0	167	
Tot.	305	387	244	205	1141	

**Traffic Lane Flows**

Lane	Scenario 10: 2023 Reference Case 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	266
2/1	432
3/1 (with short)	276(In) 165(Out)
3/2 (short)	111
4/1	167
5/1	305
6/1	387
7/1	244
8/1	205

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	56.0 %	1668	1668
				Arm 7 Ahead	Inf	39.5 %		
				Arm 8 Right	6.84	4.5 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	77.0 %	1842	1842
				Arm 8 Left	8.76	23.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	4.8 %	1828	1828
				Arm 6 Ahead	Inf	76.0 %		
				Arm 7 Right	11.42	19.2 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 11: '2023 Early Years 6-7AM'** (FG11: '23EY\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	73	26	2	101
	B	26	0	25	13	64
	C	28	54	0	7	89
	D	3	33	4	0	40
	Tot.	57	160	55	22	294

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 11: 2023 Early Years 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	101
2/1	64
3/1 (with short)	89(In) 35(Out)
3/2 (short)	54
4/1	40
5/1	57
6/1	160
7/1	55
8/1	22

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	72.3 %	1606	1606
				Arm 7 Ahead	Inf	25.7 %		
				Arm 8 Right	6.84	2.0 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.0 %	1852	1852
				Arm 8 Left	8.76	20.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	7.5 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	82.5 %	1831	1831
				Arm 7 Right	11.42	10.0 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf



Full Input Data And Results

**Scenario 12: '2023 Early Years 7-8AM'** (FG12: '23EY\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	67	77	7	151	
B	90	0	60	48	198	
C	54	106	0	13	173	
D	13	94	28	0	135	
Tot.	157	267	165	68	657	

**Traffic Lane Flows**

Lane	Scenario 12: 2023 Early Years 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	151
2/1	198
3/1 (with short)	173(In) 67(Out)
3/2 (short)	106
4/1	135
5/1	157
6/1	267
7/1	165
8/1	68

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	44.4 %	1722	1722
				Arm 7 Ahead	Inf	51.0 %		
				Arm 8 Right	6.84	4.6 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.6 %	1853	1853
				Arm 8 Left	8.76	19.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	9.6 %	1792	1792
				Arm 6 Ahead	Inf	69.6 %		
				Arm 7 Right	11.42	20.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 13: '2023 Early Years 8-9AM'** (FG13: '23EY\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	97	97	8	202	
B	158	0	81	71	310	
C	131	109	0	44	284	
D	34	126	47	0	207	
Tot.	323	332	225	123	1003	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 13: 2023 Early Years 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	202
2/1	310
3/1 (with short)	284(In) 175(Out)
3/2 (short)	109
4/1	207
5/1	323
6/1	332
7/1	225
8/1	123

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	48.0 %	1707	1707
				Arm 7 Ahead	Inf	48.0 %		
				Arm 8 Right	6.84	4.0 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	74.9 %	1836	1836
				Arm 8 Left	8.76	25.1 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	16.4 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	60.9 %	1745	1745
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 14: '2023 Early Years 3-4PM'** (FG14: '23EY\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	141	82	17	240	
B	161	0	121	137	419	
C	101	143	0	58	302	
D	16	102	30	0	148	
Tot.	278	386	233	212	1109	

**Traffic Lane Flows**

Lane	Scenario 14: 2023 Early Years 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	240
2/1	419
3/1 (with short)	302(In) 159(Out)
3/2 (short)	143
4/1	148
5/1	278
6/1	386
7/1	233
8/1	212

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	58.8 %	1648	1648
				Arm 7 Ahead	Inf	34.2 %		
				Arm 8 Right	6.84	7.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	63.5 %	1802	1802
				Arm 8 Left	8.76	36.5 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	10.8 %	1786	1786
				Arm 6 Ahead	Inf	68.9 %		
				Arm 7 Right	11.42	20.3 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 15: '2023 Early Years 5-6PM'** (FG15: '23EY\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	163	112	12	287
	B	187	0	138	155	480
	C	168	119	0	38	325
	D	8	127	32	0	167
	Tot.	363	409	282	205	1259

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 15: 2023 Early Years 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	287
2/1	480
3/1 (with short)	325(In) 206(Out)
3/2 (short)	119
4/1	167
5/1	363
6/1	409
7/1	282
8/1	205

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	56.8 %	1666	1666
				Arm 7 Ahead	Inf	39.0 %		
				Arm 8 Right	6.84	4.2 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	81.6 %	1856	1856
				Arm 8 Left	8.76	18.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	4.8 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	76.0 %	1828	1828
				Arm 7 Right	11.42	19.2 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 16: '2028 Reference Case 6-7AM'** (FG16: '28RC\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	65	29	2	96	
B	25	0	22	14	61	
C	28	27	0	7	62	
D	4	34	5	0	43	
Tot.	57	126	56	23	262	

**Traffic Lane Flows**

Lane	Scenario 16: 2028 Reference Case 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	96
2/1	61
3/1 (with short)	62(In) 35(Out)
3/2 (short)	27
4/1	43
5/1	57
6/1	126
7/1	56
8/1	23

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	67.7 %	1625	1625
				Arm 7 Ahead	Inf	30.2 %		
				Arm 8 Right	6.84	2.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.0 %	1852	1852
				Arm 8 Left	8.76	20.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	9.3 %	1815	1815
				Arm 6 Ahead	Inf	79.1 %		
				Arm 7 Right	11.42	11.6 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 17: '2028 Reference Case 7-8AM'** (FG17: '28RC\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	45	82	7	134
	B	83	0	41	50	174
	C	48	82	0	14	144
	D	14	98	30	0	142
	Tot.	145	225	153	71	594



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 17: 2028 Reference Case 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	134
2/1	174
3/1 (with short)	144(In) 62(Out)
3/2 (short)	82
4/1	142
5/1	145
6/1	225
7/1	153
8/1	71

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	33.6 %	1773	1773
				Arm 7 Ahead	Inf	61.2 %		
				Arm 8 Right	6.84	5.2 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	77.4 %	1844	1844
				Arm 8 Left	8.76	22.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	9.9 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	69.0 %	1790	1790
				Arm 7 Right	11.42	21.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 18: '2028 Reference Case 8-9AM'** (FG18: '28RC\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	95	96	8	199	
B	190	0	72	74	336	
C	132	123	0	47	302	
D	35	132	49	0	216	
Tot.	357	350	217	129	1053	

**Traffic Lane Flows**

Lane	Scenario 18: 2028 Reference Case 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	199
2/1	336
3/1 (with short)	302(In) 179(Out)
3/2 (short)	123
4/1	216
5/1	357
6/1	350
7/1	217
8/1	129

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	47.7 %	1708	1708
				Arm 7 Ahead	Inf	48.2 %		
				Arm 8 Right	6.84	4.0 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	73.7 %	1833	1833
				Arm 8 Left	8.76	26.3 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	16.2 %	1747	1747
				Arm 6 Ahead	Inf	61.1 %		
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 19: '2028 Reference Case 3-4PM'** (FG19: '28RC\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	142	88	18	248
	B	176	0	118	145	439
	C	104	155	0	61	320
	D	17	108	32	0	157
	Tot.	297	405	238	224	1164

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 19: 2028 Reference Case 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	248
2/1	439
3/1 (with short)	320(In) 165(Out)
3/2 (short)	155
4/1	157
5/1	297
6/1	405
7/1	238
8/1	224

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	57.3 %	1655	1655
				Arm 7 Ahead	Inf	35.5 %		
				Arm 8 Right	6.84	7.3 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow					1800	1800	
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	63.0 %	1801	1801
				Arm 8 Left	8.76	37.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	10.8 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	68.8 %	1785	1785
				Arm 7 Right	11.42	20.4 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow					Inf	Inf	

Full Input Data And Results

**Scenario 20: '2028 Reference Case 5-6PM'** (FG20: '28RC\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	131	106	13	250	
B	182	0	110	163	455	
C	127	144	0	40	311	
D	9	134	33	0	176	
Tot.	318	409	249	216	1192	

**Traffic Lane Flows**

Lane	Scenario 20: 2028 Reference Case 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	250
2/1	455
3/1 (with short)	311(In) 167(Out)
3/2 (short)	144
4/1	176
5/1	318
6/1	409
7/1	249
8/1	216

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	52.4 %	1683	1683
				Arm 7 Ahead	Inf	42.4 %		
				Arm 8 Right	6.84	5.2 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	76.0 %	1840	1840
				Arm 8 Left	8.76	24.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	5.1 %	1827	1827
				Arm 6 Ahead	Inf	76.1 %		
				Arm 7 Right	11.42	18.8 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 21: '2028 Peak Construction 6-7AM'** (FG21: '28PC\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	64	27	2	93
	B	21	0	21	14	56
	C	27	46	0	7	80
	D	4	34	5	0	43
	Tot.	52	144	53	23	272

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 21: 2028 Peak Construction 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	93
2/1	56
3/1 (with short)	80(In) 34(Out)
3/2 (short)	46
4/1	43
5/1	52
6/1	144
7/1	53
8/1	23

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	68.8 %	1620	1620
				Arm 7 Ahead	Inf	29.0 %		
				Arm 8 Right	6.84	2.2 %		
2/1 (B1119 Church Street Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	79.4 %	1850	1850
				Arm 8 Left	8.76	20.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	9.3 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	79.1 %	1815	1815
				Arm 7 Right	11.42	11.6 %		
5/1 (High Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (S Entrance Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (Chantry Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 22: '2028 Peak Construction 7-8AM'** (FG22: '28PC\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	68	76	7	151	
B	77	0	44	50	171	
C	48	102	0	14	164	
D	14	98	30	0	142	
Tot.	139	268	150	71	628	

**Traffic Lane Flows**

Lane	Scenario 22: 2028 Peak Construction 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	151
2/1	171
3/1 (with short)	164(In) 62(Out)
3/2 (short)	102
4/1	142
5/1	139
6/1	268
7/1	150
8/1	71



**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	45.0 %	1719	1719
				Arm 7 Ahead	Inf	50.3 %		
				Arm 8 Right	6.84	4.6 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	77.4 %	1844	1844
				Arm 8 Left	8.76	22.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	9.9 %	1790	1790
				Arm 6 Ahead	Inf	69.0 %		
				Arm 7 Right	11.42	21.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 23: '2028 Peak Construction 8-9AM'** (FG23: '28PC\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	99	95	8	202	
B	186	0	73	74	333	
C	133	142	0	47	322	
D	35	132	49	0	216	
Tot.	354	373	217	129	1073	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 23: 2028 Peak Construction 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	202
2/1	333
3/1 (with short)	322(In) 180(Out)
3/2 (short)	142
4/1	216
5/1	354
6/1	373
7/1	217
8/1	129

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	49.0 %	1702	1702
				Arm 7 Ahead	Inf	47.0 %		
				Arm 8 Right	6.84	4.0 %		
2/1 (B1119 Church Street Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	73.9 %	1833	1833
				Arm 8 Left	8.76	26.1 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	16.2 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	61.1 %	1747	1747
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (S Entrance Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (Chantry Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 24: '2028 Peak Construction 3-4PM'** (FG24: '28PC\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	136	87	18	241	
B	174	0	161	145	480	
C	103	181	0	61	345	
D	17	108	32	0	157	
Tot.	294	425	280	224	1223	

**Traffic Lane Flows**

Lane	Scenario 24: 2028 Peak Construction 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	241
2/1	480
3/1 (with short)	345(In) 164(Out)
3/2 (short)	181
4/1	157
5/1	294
6/1	425
7/1	280
8/1	224

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	56.4 %	1658	1658
				Arm 7 Ahead	Inf	36.1 %		
				Arm 8 Right	6.84	7.5 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	62.8 %	1800	1800
				Arm 8 Left	8.76	37.2 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	10.8 %	1785	1785
				Arm 6 Ahead	Inf	68.8 %		
				Arm 7 Right	11.42	20.4 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 25: '2028 Peak Construction 5-6PM'** (FG25: '28PC\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	130	107	13	250	
B	185	0	136	163	484	
C	163	155	0	40	358	
D	9	134	33	0	176	
Tot.	357	419	276	216	1268	

Full Input Data And Results

**Traffic Lane Flows**

Scenario 25: 2028 Peak Construction 5-6PM	
Junction: J8_B1121/B1119_Saxmundham	
1/1	250
2/1	484
3/1 (with short)	358(In) 203(Out)
3/2 (short)	155
4/1	176
5/1	357
6/1	419
7/1	276
8/1	216

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	52.0 %	1685	1685
				Arm 7 Ahead	Inf	42.8 %		
				Arm 8 Right	6.84	5.2 %		
2/1 (B1119 Church Street Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.3 %	1852	1852
				Arm 8 Left	8.76	19.7 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	5.1 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	76.1 %	1827	1827
				Arm 7 Right	11.42	18.8 %		
5/1 (High Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (S Entrance Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (Chantry Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 26: '2034 Reference Case 6-7AM'** (FG26: '34RC\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	65	31	2	98	
B	27	0	22	15	64	
C	29	28	0	7	64	
D	4	36	5	0	45	
Tot.	60	129	58	24	271	

**Traffic Lane Flows**

Lane	Scenario 26: 2034 Reference Case 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	98
2/1	64
3/1 (with short)	64(In) 36(Out)
3/2 (short)	28
4/1	45
5/1	60
6/1	129
7/1	58
8/1	24

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	66.3 %	1631	1631
				Arm 7 Ahead	Inf	31.6 %		
				Arm 8 Right	6.84	2.0 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.6 %	1853	1853
				Arm 8 Left	8.76	19.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	8.9 %	1819	1819
				Arm 6 Ahead	Inf	80.0 %		
				Arm 7 Right	11.42	11.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 27: '2034 Reference Case 7-8AM'** (FG27: '34RC\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	48	83	7	138
	B	94	0	42	52	188
	C	51	92	0	14	157
	D	14	102	31	0	147
	Tot.	159	242	156	73	630

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 27: 2034 Reference Case 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	138
2/1	188
3/1 (with short)	157(In) 65(Out)
3/2 (short)	92
4/1	147
5/1	159
6/1	242
7/1	156
8/1	73

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	34.8 %	1768	1768
				Arm 7 Ahead	Inf	60.1 %		
				Arm 8 Right	6.84	5.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	78.5 %	1847	1847
				Arm 8 Left	8.76	21.5 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	9.5 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	69.4 %	1792	1792
				Arm 7 Right	11.42	21.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf



Full Input Data And Results

**Scenario 28: '2034 Reference Case 8-9AM'** (FG28: '34RC\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	84	70	8	162	
B	233	0	72	77	382	
C	135	141	0	48	324	
D	37	137	51	0	225	
Tot.	405	362	193	133	1093	

**Traffic Lane Flows**

Lane	Scenario 28: 2034 Reference Case 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	162
2/1	382
3/1 (with short)	324(In) 183(Out)
3/2 (short)	141
4/1	225
5/1	405
6/1	362
7/1	193
8/1	133

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	51.9 %	1686	1686
				Arm 7 Ahead	Inf	43.2 %		
				Arm 8 Right	6.84	4.9 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	73.8 %	1833	1833
				Arm 8 Left	8.76	26.2 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	16.4 %	1745	1745
				Arm 6 Ahead	Inf	60.9 %		
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 29: '2034 Reference Case 3-4PM'** (FG29: '34RC\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	145	95	18	258
	B	195	0	123	150	468
	C	109	179	0	64	352
	D	18	112	33	0	163
	Tot.	322	436	251	232	1241

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 29: 2034 Reference Case 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	258
2/1	468
3/1 (with short)	352(In) 173(Out)
3/2 (short)	179
4/1	163
5/1	322
6/1	436
7/1	251
8/1	232

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	56.2 %	1660	1660
				Arm 7 Ahead	Inf	36.8 %		
				Arm 8 Right	6.84	7.0 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	63.0 %	1801	1801
				Arm 8 Left	8.76	37.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	11.0 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	68.7 %	1784	1784
				Arm 7 Right	11.42	20.2 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 30: '2034 Reference Case 5-6PM'** (FG30: '34RC\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	132	108	13	253	
B	200	0	102	170	472	
C	101	163	0	42	306	
D	9	139	35	0	183	
Tot.	310	434	245	225	1214	

**Traffic Lane Flows**

Lane	Scenario 30: 2034 Reference Case 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	253
2/1	472
3/1 (with short)	306(In) 143(Out)
3/2 (short)	163
4/1	183
5/1	310
6/1	434
7/1	245
8/1	225

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	52.2 %	1684	1684
				Arm 7 Ahead	Inf	42.7 %		
				Arm 8 Right	6.84	5.1 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	70.6 %	1823	1823
				Arm 8 Left	8.76	29.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	4.9 %	1827	1827
				Arm 6 Ahead	Inf	76.0 %		
				Arm 7 Right	11.42	19.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 31: '2034 Operational Led 6-7AM'** (FG31: '34OP\_6-7AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	43	29	2	74	
B	18	0	22	15	55	
C	28	30	0	7	65	
D	4	36	5	0	45	
Tot.	50	109	56	24	239	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 31: 2034 Operational Led 6-7AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	74
2/1	55
3/1 (with short)	65(In) 35(Out)
3/2 (short)	30
4/1	45
5/1	50
6/1	109
7/1	56
8/1	24

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	58.1 %	1665	1665
				Arm 7 Ahead	Inf	39.2 %		
				Arm 8 Right	6.84	2.7 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	80.0 %	1852	1852
				Arm 8 Left	8.76	20.0 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	8.9 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	80.0 %	1819	1819
				Arm 7 Right	11.42	11.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 32: '2034 Operational Led 7-8AM'** (FG32: '34OP\_7-8AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	45	74	7	126	
B	82	0	41	52	175	
C	48	101	0	14	163	
D	14	102	31	0	147	
Tot.	144	248	146	73	611	

**Traffic Lane Flows**

Lane	Scenario 32: 2034 Operational Led 7-8AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	126
2/1	175
3/1 (with short)	163(In) 62(Out)
3/2 (short)	101
4/1	147
5/1	144
6/1	248
7/1	146
8/1	73

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	35.7 %	1761	1761
				Arm 7 Ahead	Inf	58.7 %		
				Arm 8 Right	6.84	5.6 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	77.4 %	1844	1844
				Arm 8 Left	8.76	22.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	9.5 %	1792	1792
				Arm 6 Ahead	Inf	69.4 %		
				Arm 7 Right	11.42	21.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 33: '2034 Operational Led 8-9AM'** (FG33: '34OP\_8-9AM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	95	69	8	172	
B	226	0	77	77	380	
C	134	246	0	48	428	
D	37	137	51	0	225	
Tot.	397	478	197	133	1205	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 33: 2034 Operational Led 8-9AM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	172
2/1	380
3/1 (with short)	428(In) 182(Out)
3/2 (short)	246
4/1	225
5/1	397
6/1	478
7/1	197
8/1	133

**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	55.2 %	1672	1672
				Arm 7 Ahead	Inf	40.1 %		
				Arm 8 Right	6.84	4.7 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	73.6 %	1832	1832
				Arm 8 Left	8.76	26.4 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	16.4 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	60.9 %	1745	1745
				Arm 7 Right	11.42	22.7 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 34: '2034 Operational Led 3-4PM'** (FG34: '34OP\_3-4PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	135	91	18	244	
B	183	0	118	150	451	
C	106	176	0	64	346	
D	18	112	33	0	163	
Tot.	307	423	242	232	1204	

**Traffic Lane Flows**

Lane	Scenario 34: 2034 Operational Led 3-4PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	244
2/1	451
3/1 (with short)	346(In) 170(Out)
3/2 (short)	176
4/1	163
5/1	307
6/1	423
7/1	242
8/1	232

**Lane Saturation Flows**

Junction: J8_B1121/B1119_Saxmundham								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	55.3 %	1663	1663
				Arm 7 Ahead	Inf	37.3 %		
				Arm 8 Right	6.84	7.4 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	62.4 %	1799	1799
				Arm 8 Left	8.76	37.6 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
4/1 (Chantry Road)	2.93	0.00	Y	Arm 5 Left	3.88	11.0 %	1784	1784
				Arm 6 Ahead	Inf	68.7 %		
				Arm 7 Right	11.42	20.2 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

**Scenario 35: '2034 Operational Led 5-6PM'** (FG35: '34OP\_5-6PM', Plan 1: '5 stages')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	121	107	13	241	
B	177	0	102	170	449	
C	134	161	0	42	337	
D	9	139	35	0	183	
Tot.	320	421	244	225	1210	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 35: 2034 Operational Led 5-6PM
<b>Junction: J8_B1121/B1119_Saxmundham</b>	
1/1	241
2/1	449
3/1 (with short)	337(In) 176(Out)
3/2 (short)	161
4/1	183
5/1	320
6/1	421
7/1	244
8/1	225

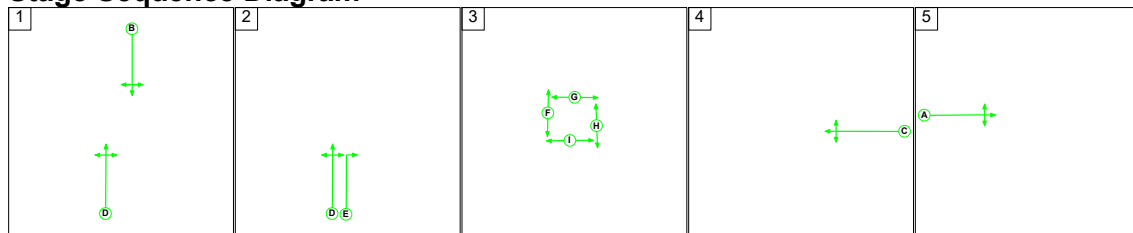
**Lane Saturation Flows**

<b>Junction: J8_B1121/B1119_Saxmundham</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street)	3.69	0.00	Y	Arm 6 Left	4.68	50.2 %	1692	1692
				Arm 7 Ahead	Inf	44.4 %		
				Arm 8 Right	6.84	5.4 %		
2/1 (B1119 Church Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (S Entrance)	3.00	0.00	Y	Arm 5 Ahead	Inf	76.1 %	1840	1840
				Arm 8 Left	8.76	23.9 %		
3/2 (S Entrance)	3.00	0.00	N	Arm 6 Right	15.64	100.0 %	1875	1875
				Arm 5 Left	3.88	4.9 %		
4/1 (Chantry Road)	2.93	0.00	Y	Arm 6 Ahead	Inf	76.0 %	1827	1827
				Arm 7 Right	11.42	19.1 %		
5/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B1119 Church Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (S Entrance Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Chantry Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Base Year 6-7AM' (FG1: '17BY\_6-7AM', Plan 1: '5 stages')

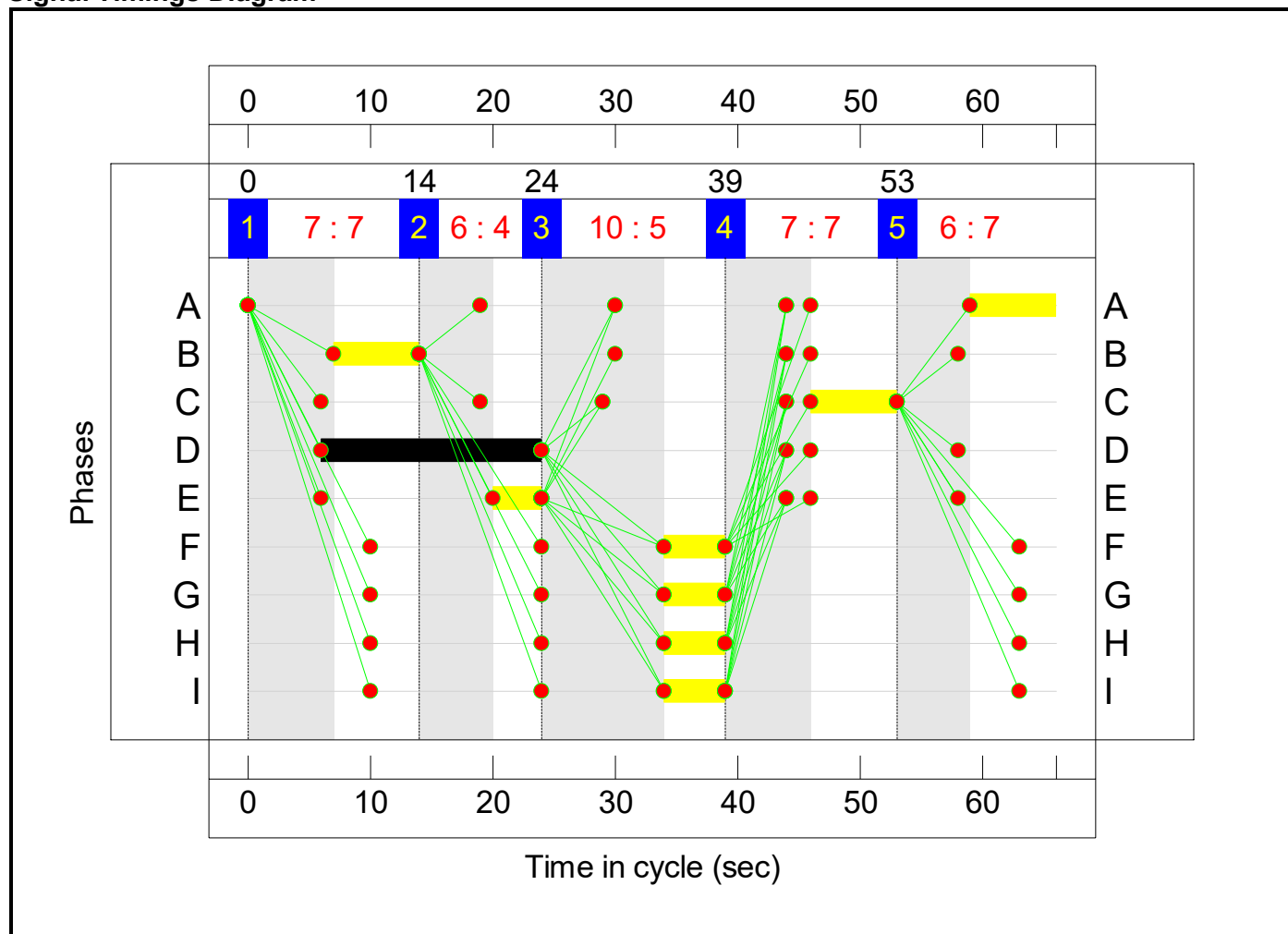
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

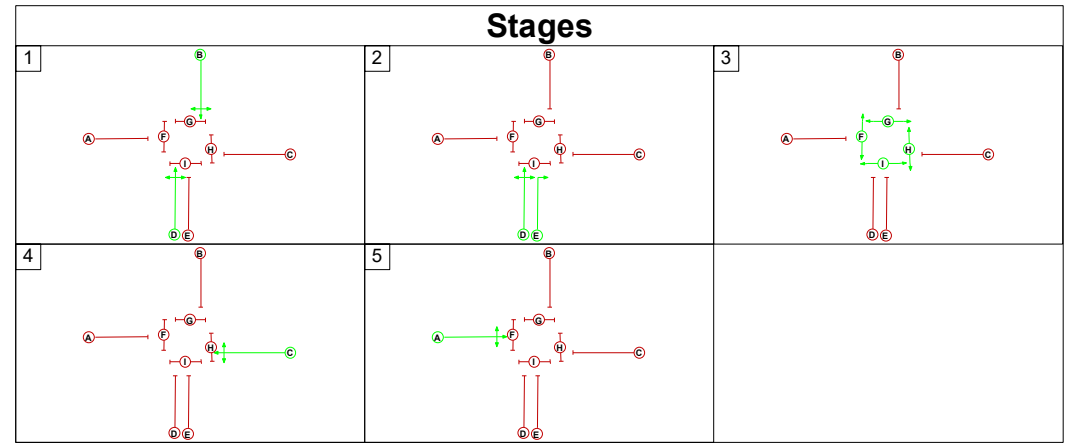
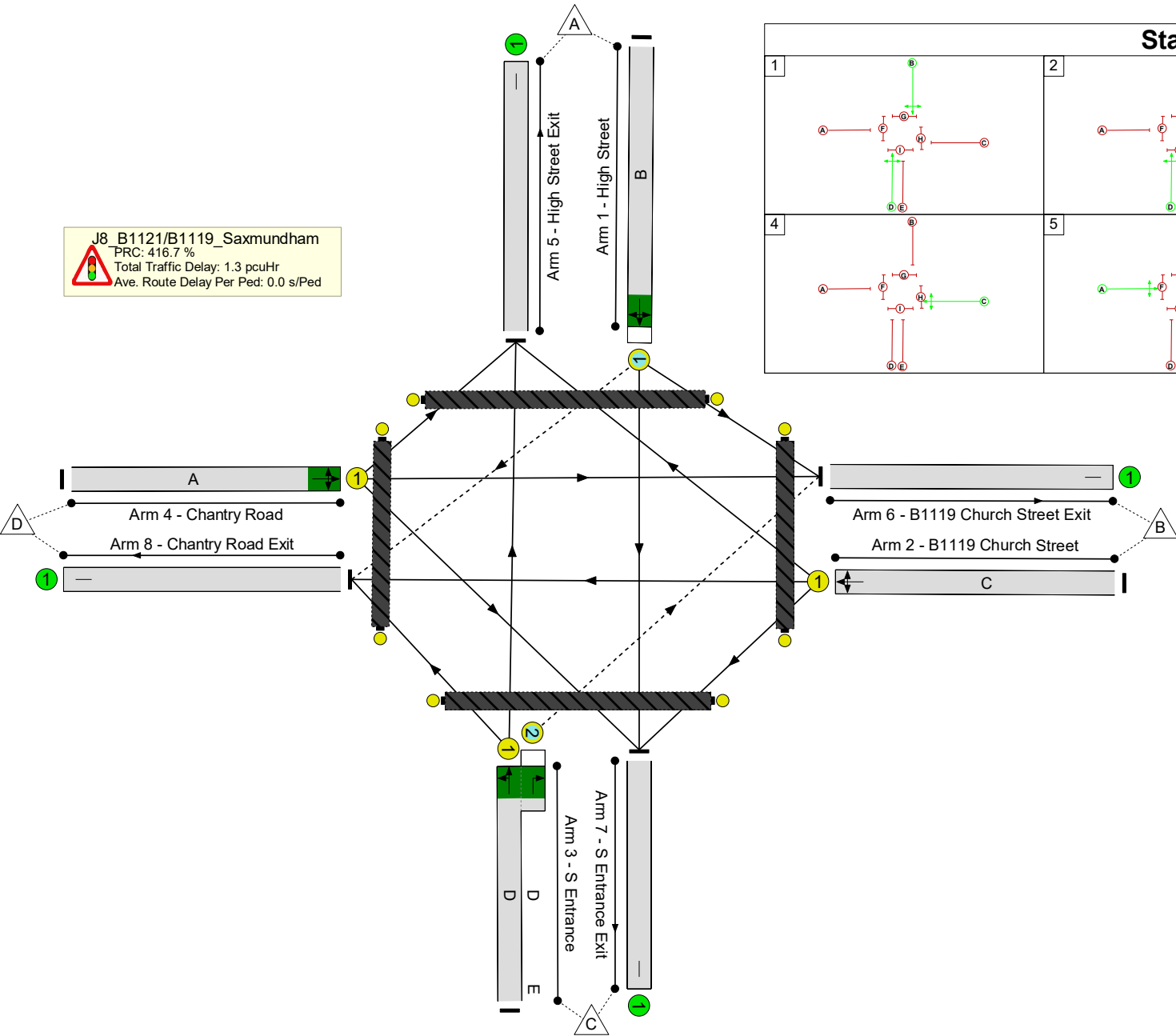
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 416.7 %  
 Total Traffic Delay: 1.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	17.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	17.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	42	1741	420	10.0%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	38	1800	218	17.4%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	56	1855:1875	351+263	9.1 : 9.1%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	36	1823	304	11.8%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	38	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	44	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

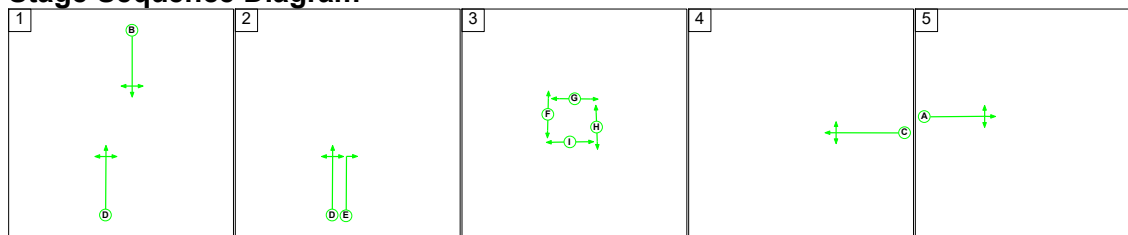




Full Input Data And Results

Scenario 2: 'Base Year 7-8AM' (FG2: '17BY\_7-8AM', Plan 1: '5 stages')

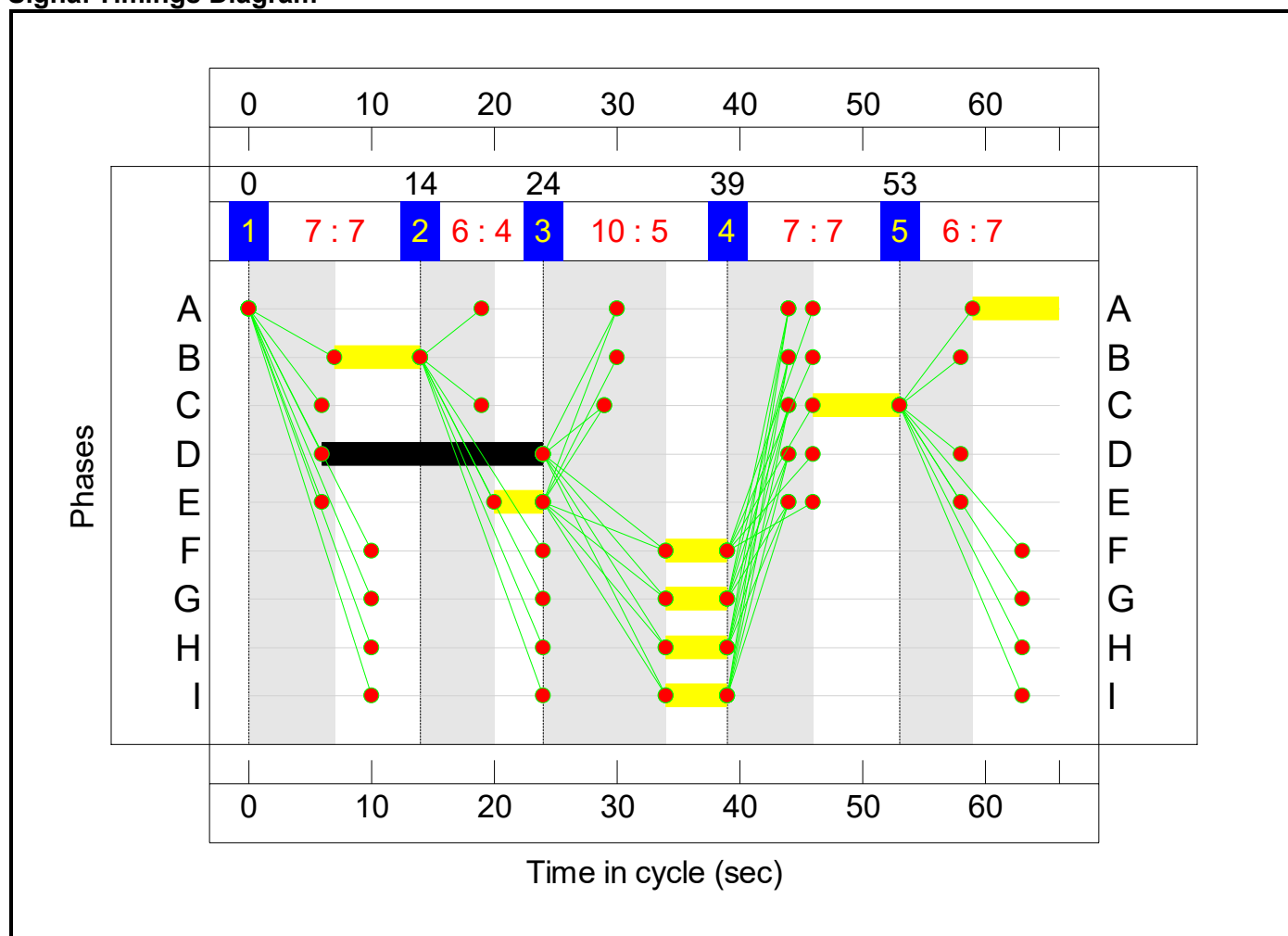
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

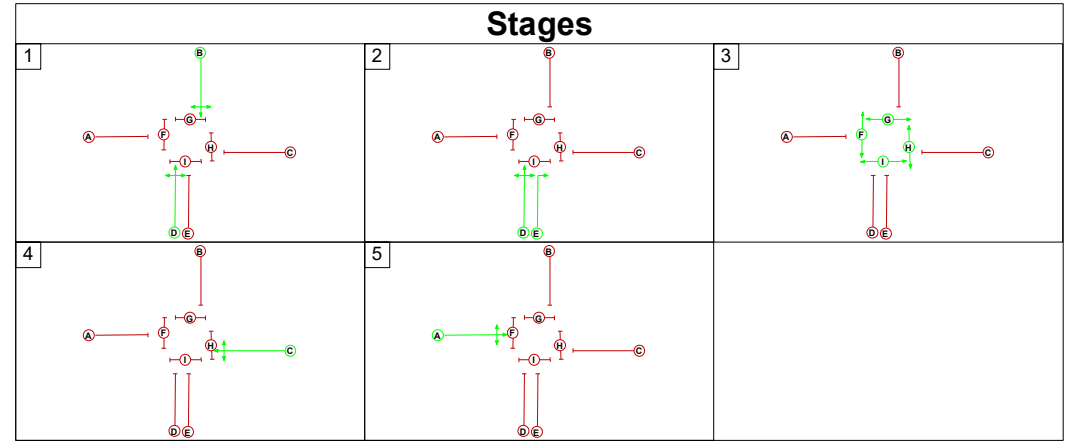
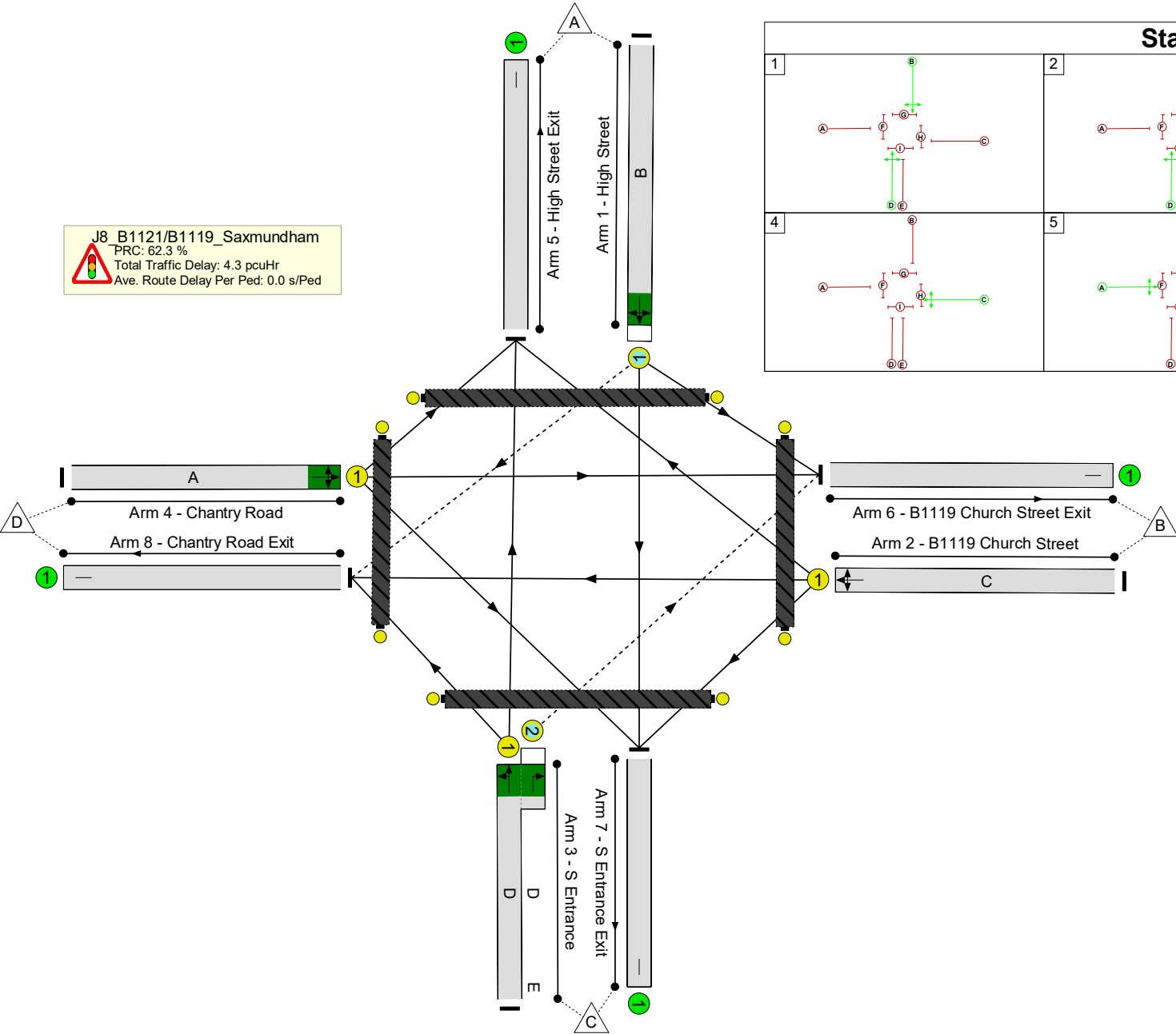
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 62.3 %  
 Total Traffic Delay: 4.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

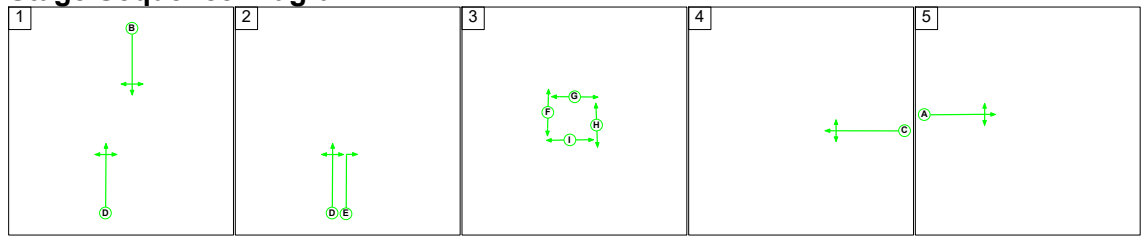
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	55.5%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	55.5%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	124	1769	418	29.6%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	121	1800	218	55.5%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	110	1849:1875	283+254	20.5 : 20.5%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	121	1791	299	40.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	97	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	179	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	139	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 3: 'Base Year 8-9AM' (FG3: '17BY\_8-9AM', Plan 1: '5 stages')

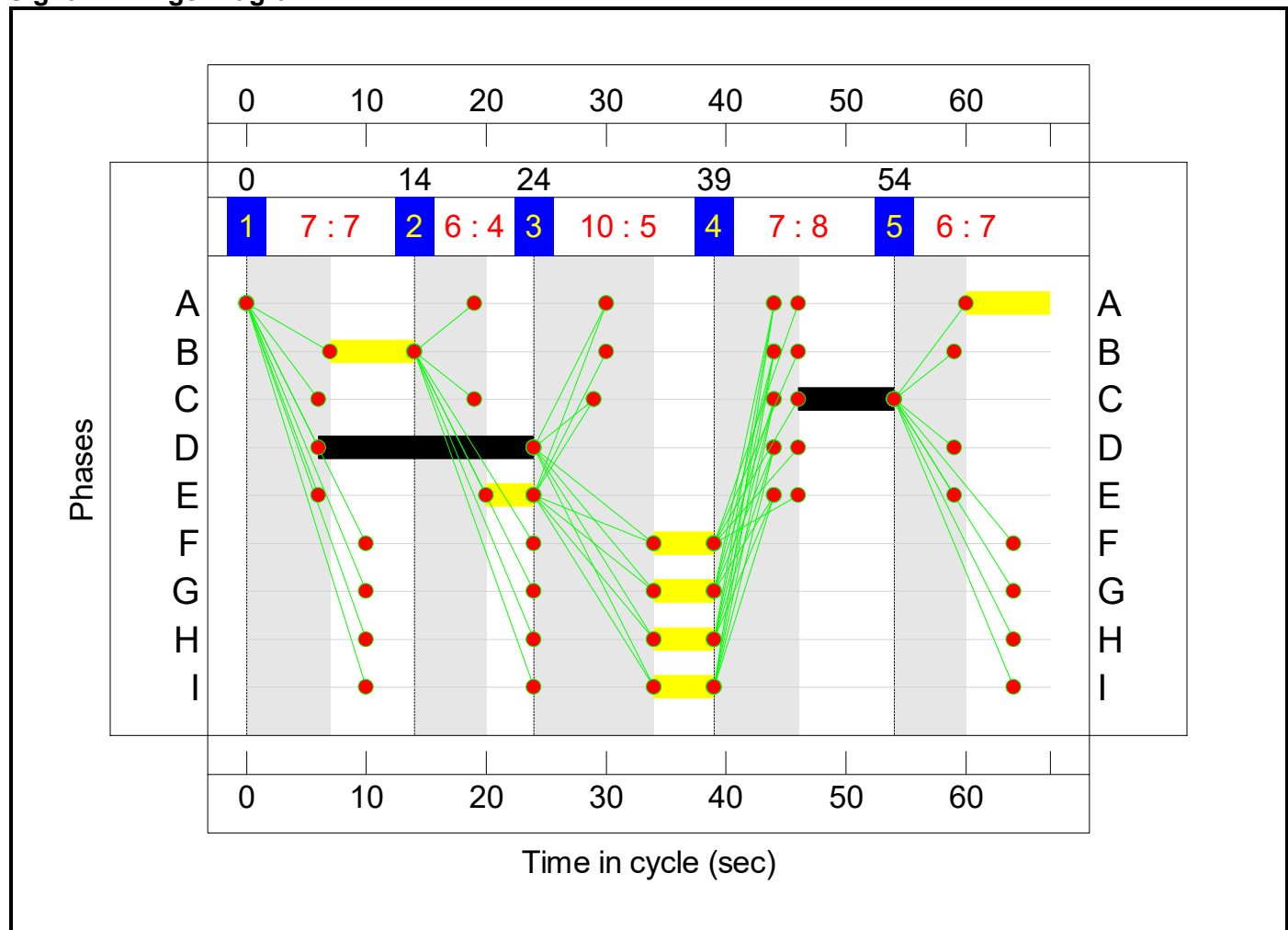
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	8	7
Change Point	0	14	24	39	54

Signal Timings Diagram

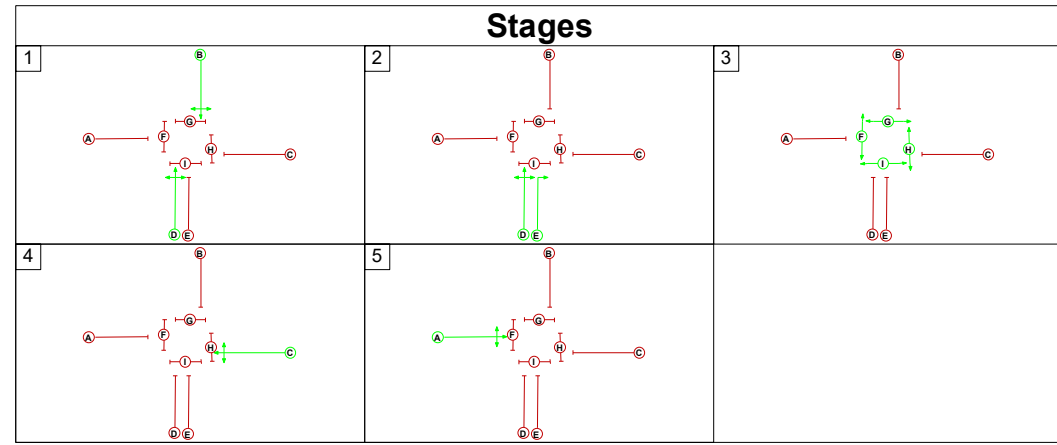
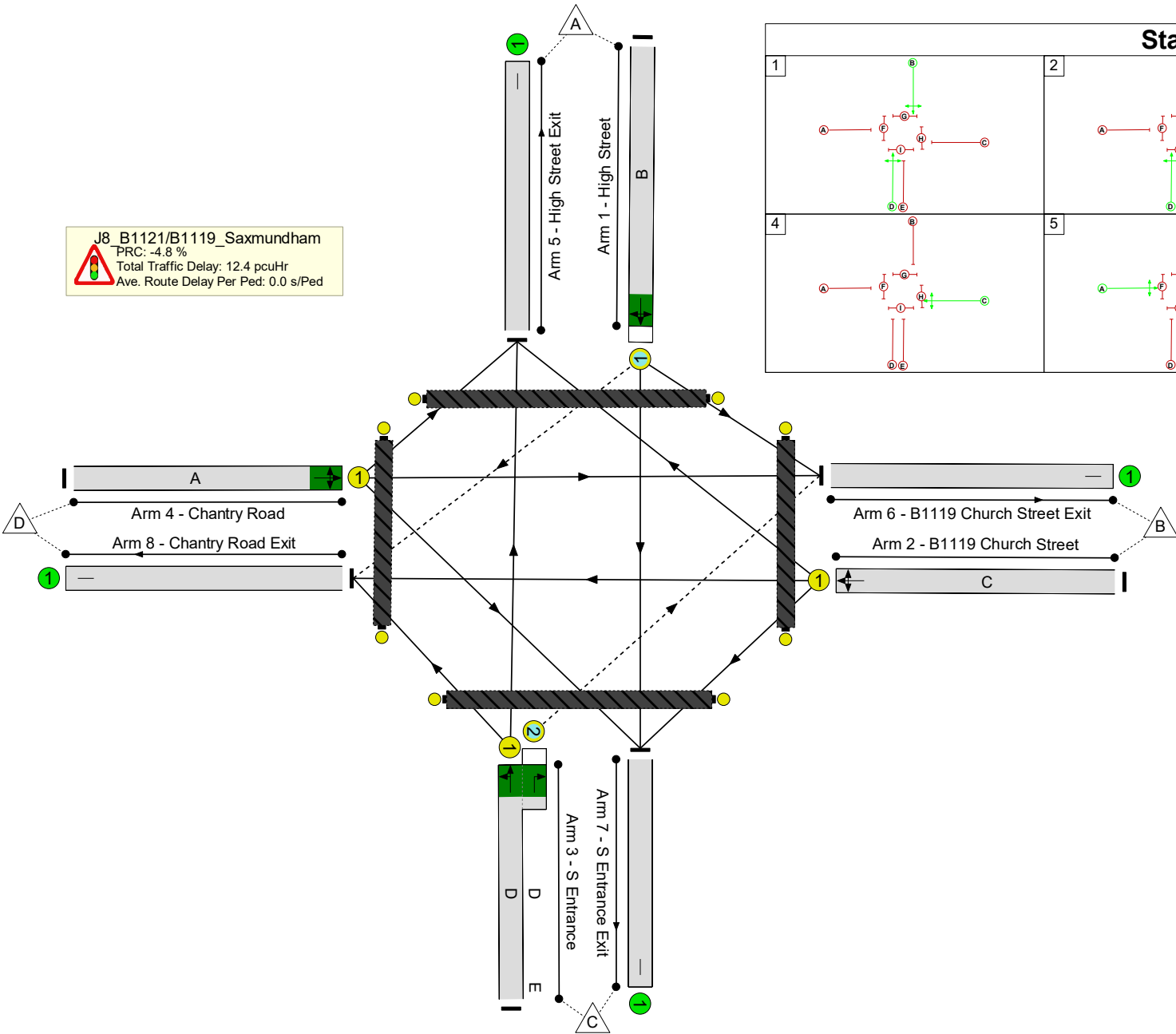


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: -4.8 %  
 Total Traffic Delay: 12.4 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

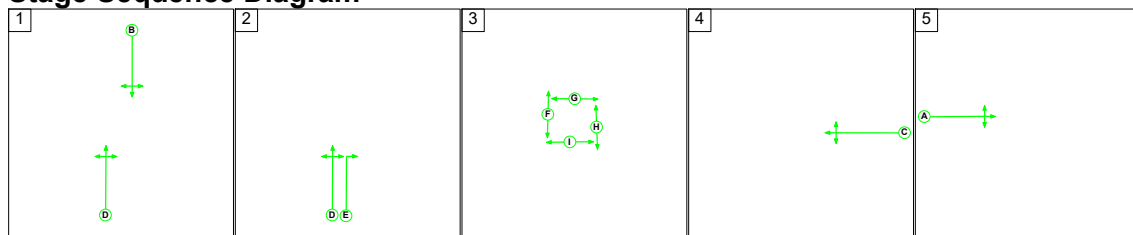
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	163	1698	282	57.8%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	8	-	228	1800	242	94.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	235	1839:1875	390+162	42.6 : 42.6%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	185	1746	287	64.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	111	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 4: 'Base Year 3-4PM' (FG4: '17BY\_3-4PM', Plan 1: '5 stages')

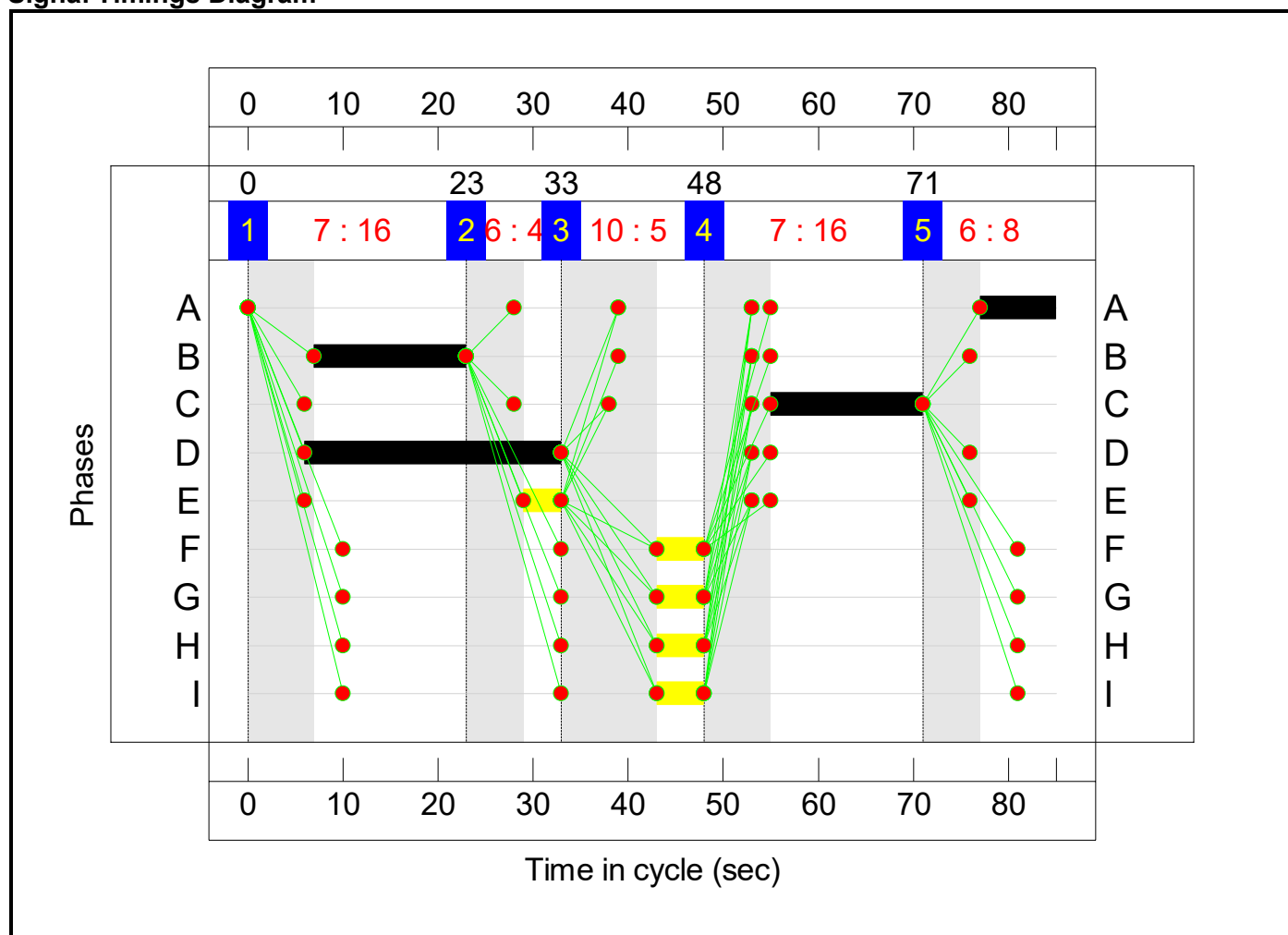
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	16	4	5	16	8
Change Point	0	23	33	48	71

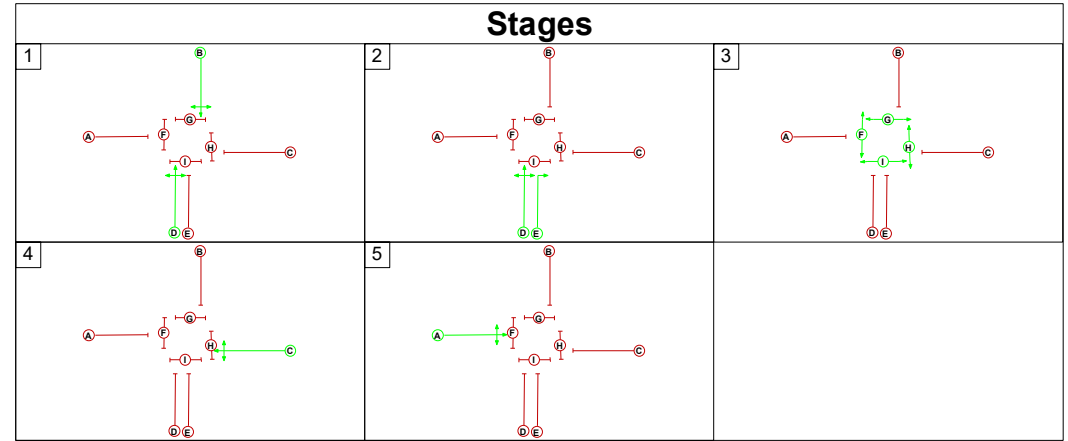
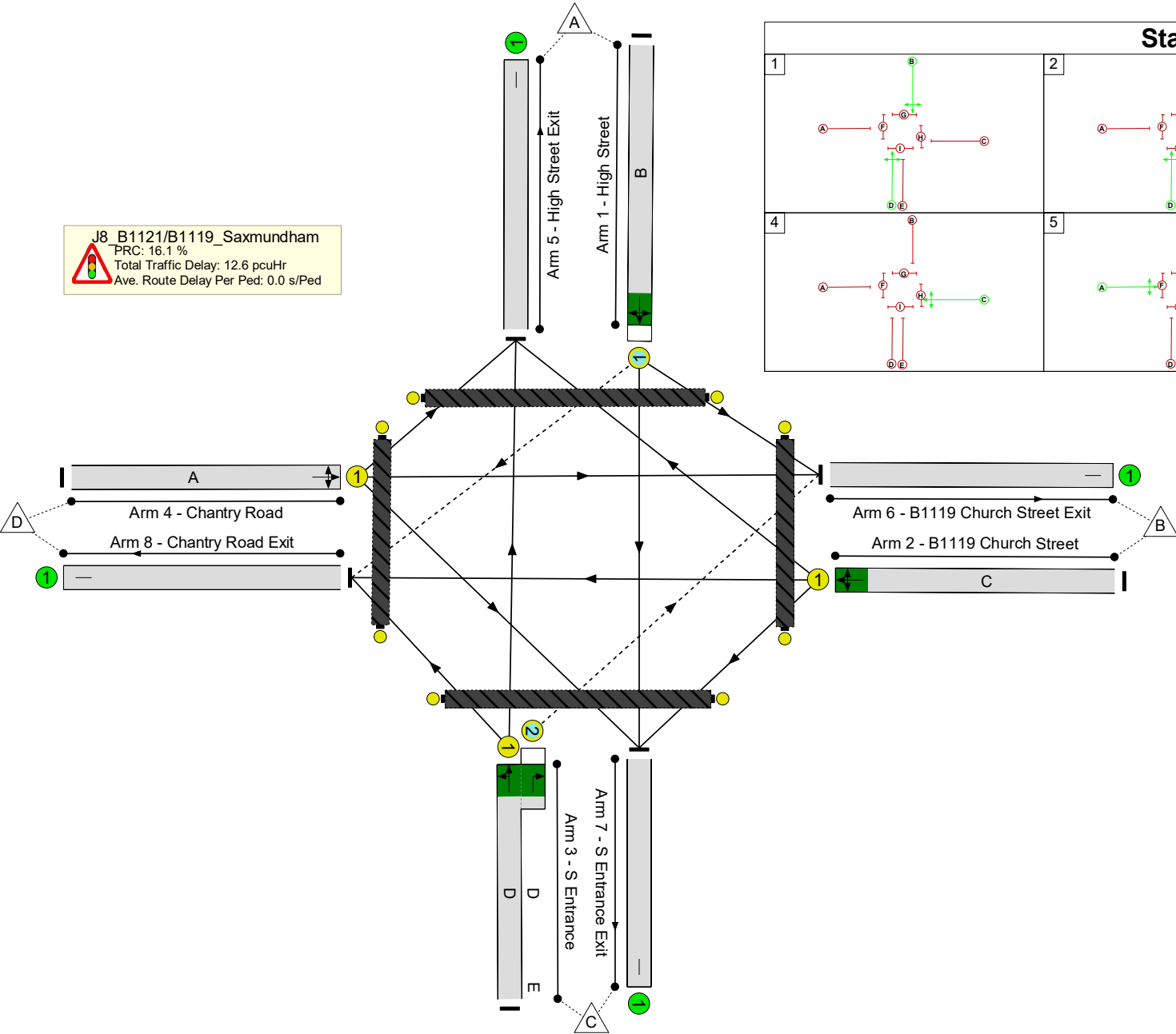
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 16.1 %  
 Total Traffic Delay: 12.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	16	-	226	1649	295	76.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	16	-	361	1800	466	77.5%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	27	4	251	1804:1875	379+268	38.8 : 38.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	8	-	134	1784	189	70.9%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	329	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

Full Input Data And Results

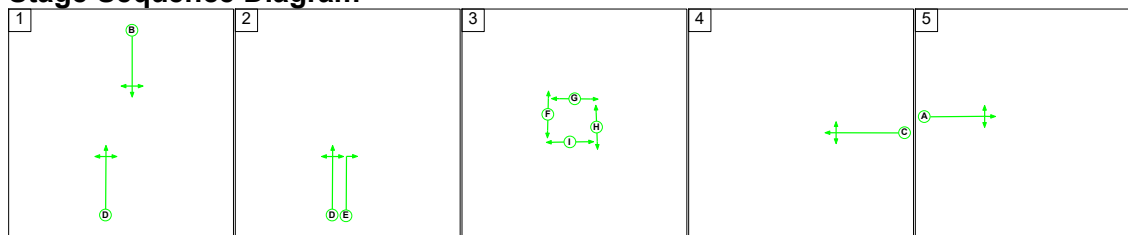
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	113	5	1	7.8	4.7	0.1	12.6	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	113	5	1	7.8	4.7	0.1	12.6	-	-	-	-
1/1	226	226	15	0	0	2.0	1.6	0.0	3.6	57.5	5.0	1.6	6.6
2/1	361	361	-	-	-	2.9	1.7	-	4.6	45.8	7.8	1.7	9.5
3/1+3/2	251	251	98	5	1	1.5	0.3	0.1	1.9	27.0	2.6	0.3	2.9
4/1	134	134	-	-	-	1.4	1.2	-	2.5	68.2	3.1	1.2	4.2
5/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	16.1	Total Delay for Signalled Lanes (pcuHr):			12.63	Cycle Time (s):		85		
			PRC Over All Lanes (%):	16.1	Total Delay Over All Lanes(pcuHr):			12.63					



Full Input Data And Results

Scenario 5: 'Base Year 5-6PM' (FG5: '17BY\_5-6PM', Plan 1: '5 stages')

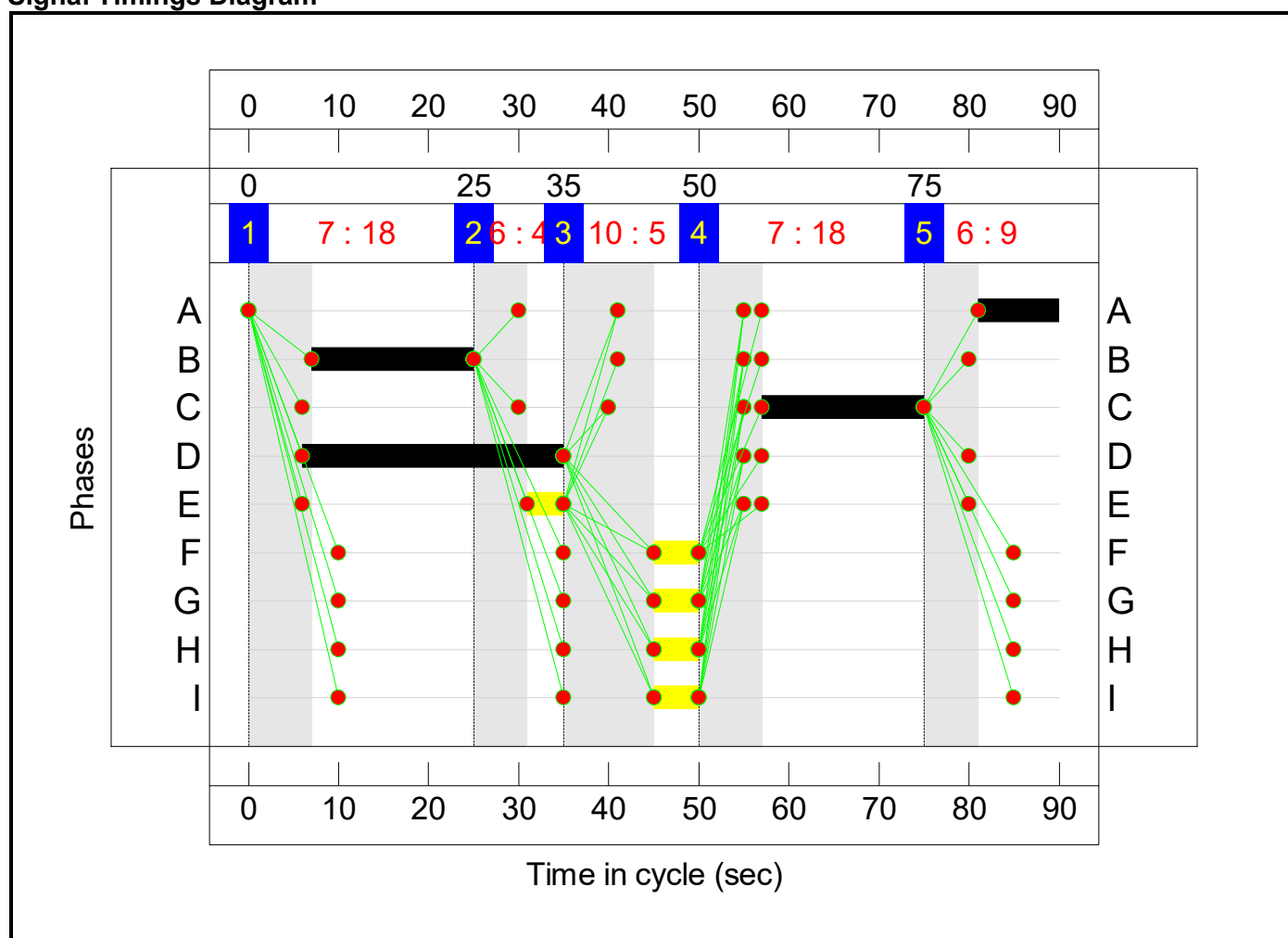
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	18	4	5	18	9
Change Point	0	25	35	50	75

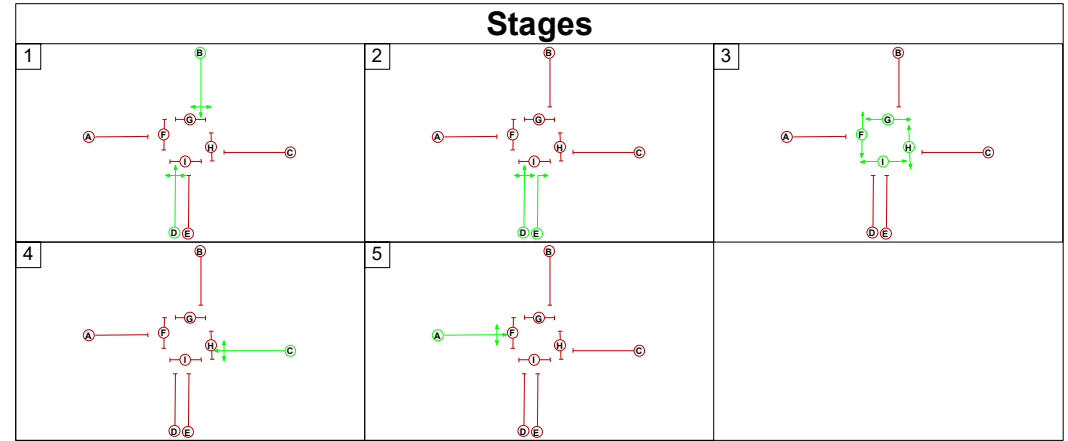
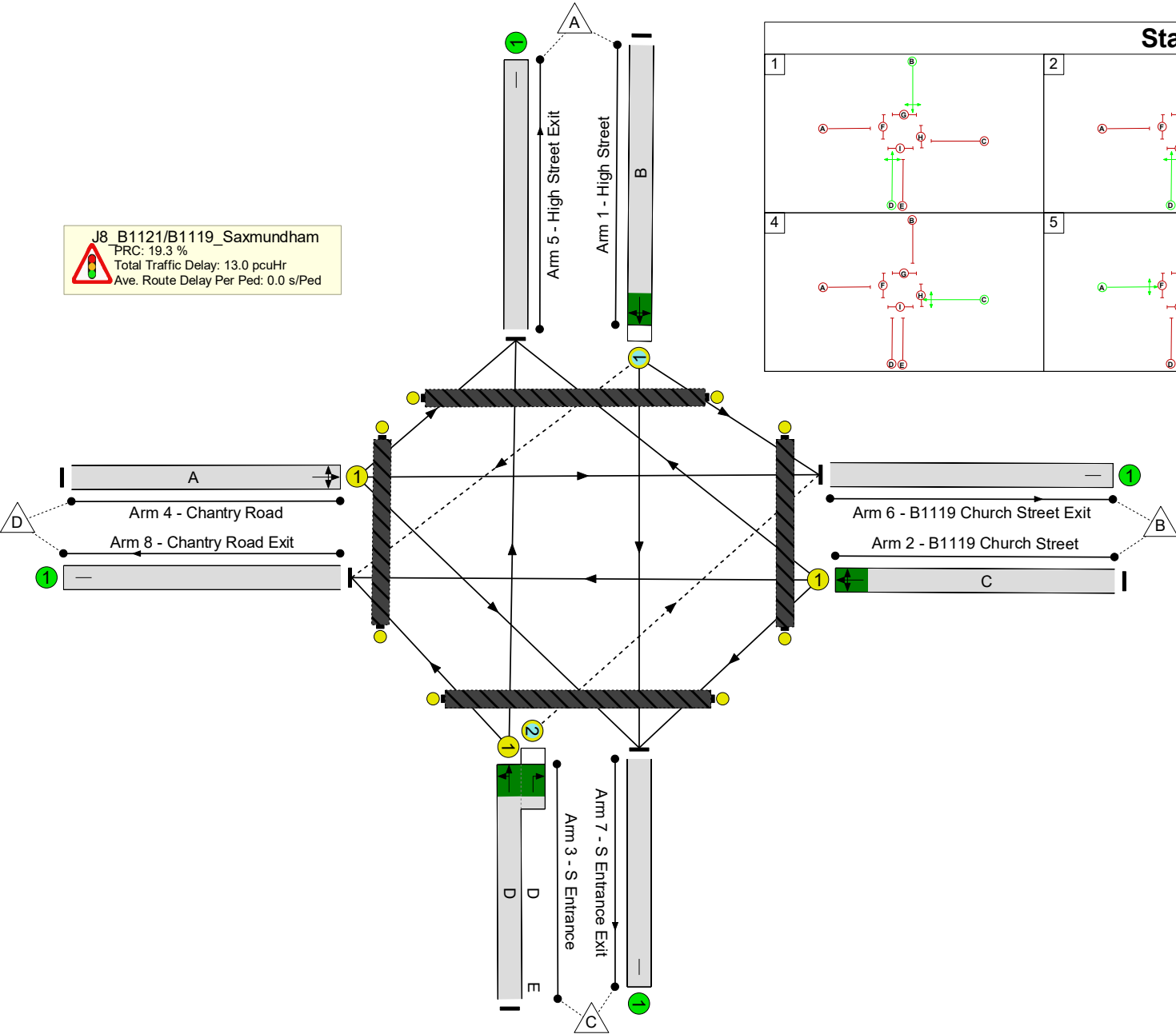
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 19.3 %  
 Total Traffic Delay: 13.0 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

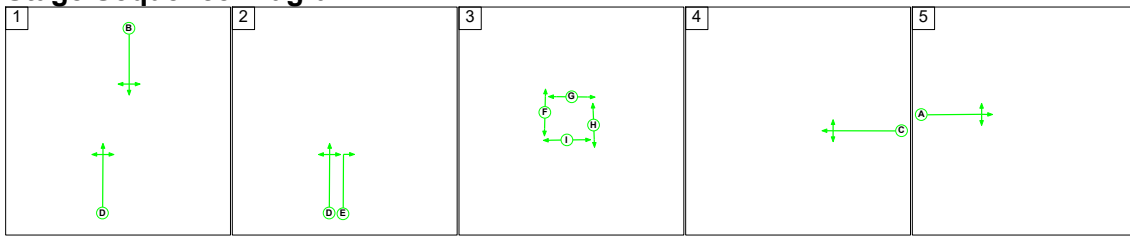
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	75.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	75.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	18	-	240	1688	321	74.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	18	-	362	1800	480	75.4%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	29	4	234	1835:1875	377+267	36.3 : 36.3%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	9	-	150	1829	203	73.8%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	185	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 6: '2023 Reference Case 6-7AM' (FG6: '23RC\_6-7AM', Plan 1: '5 stages')

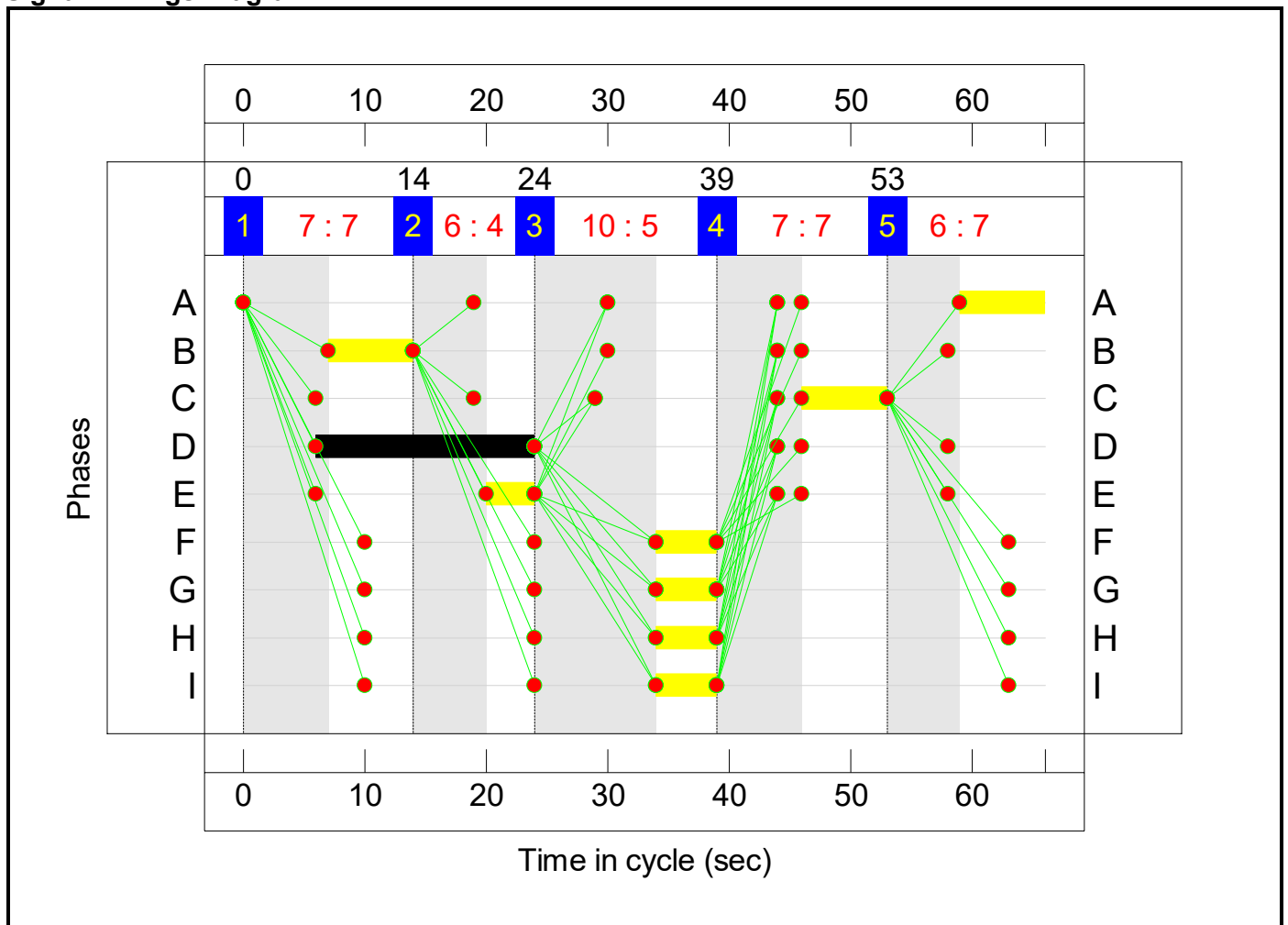
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

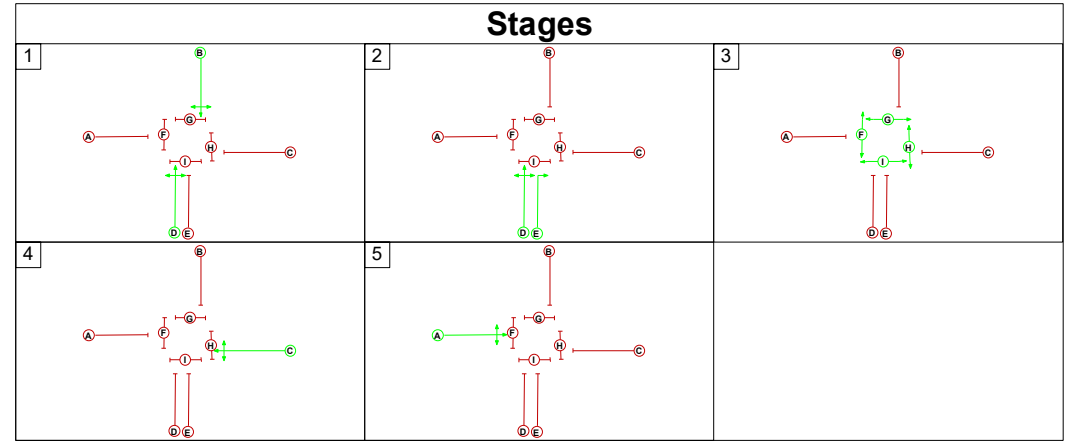
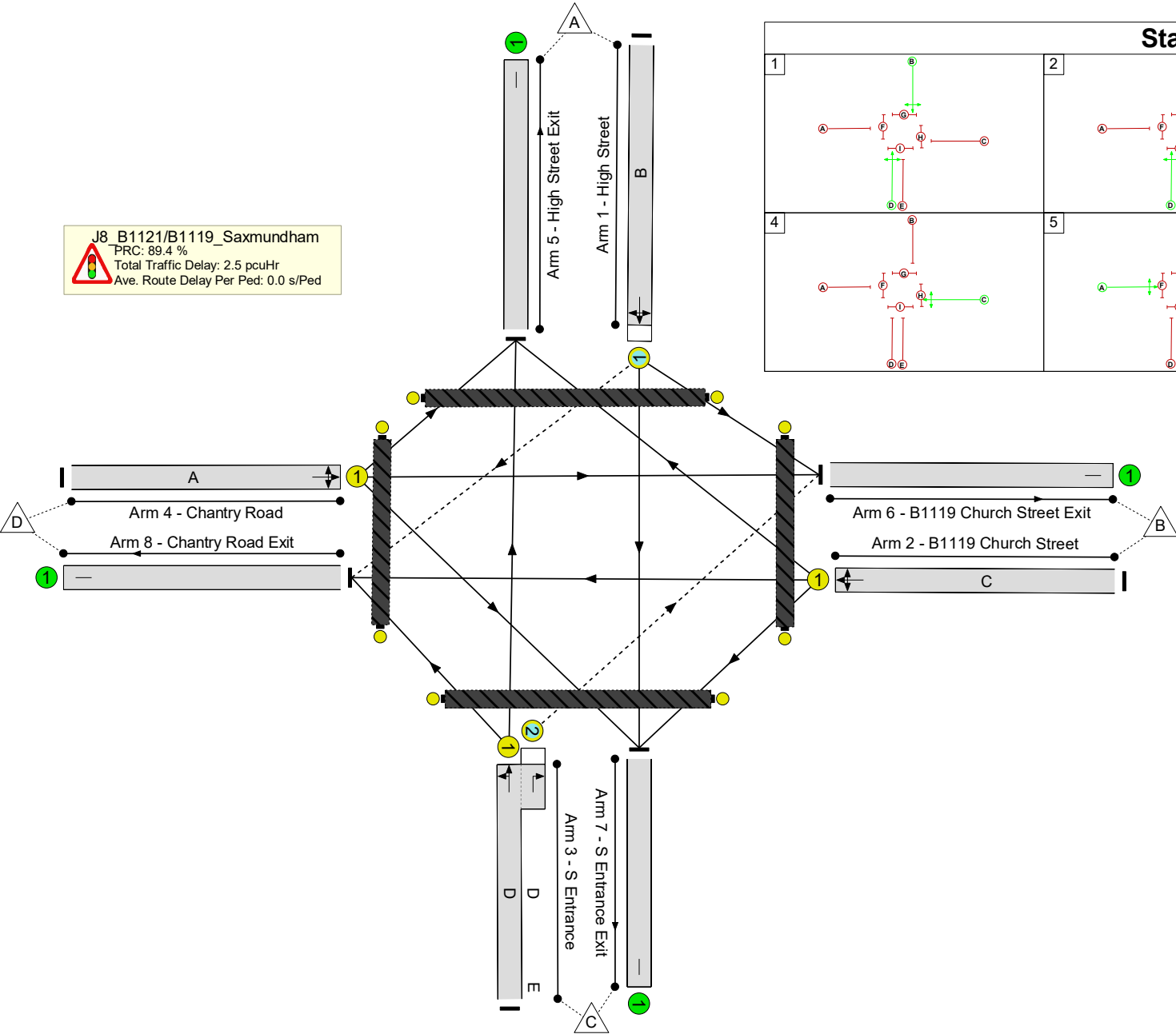
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 89.4 %  
 Total Traffic Delay: 2.5 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	47.5%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	47.5%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	93	1615	196	47.5%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	56	1800	218	25.7%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	61	1850:1875	378+300	9.0 : 9.0%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	40	1831	222	18.0%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	53	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	125	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	22	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

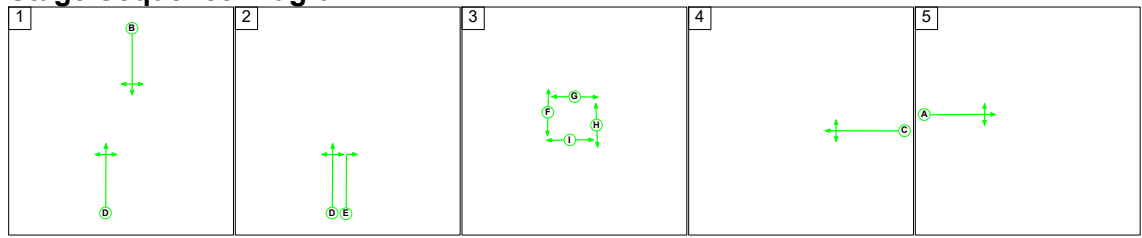
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	25	3	0	1.7	0.8	0.0	2.5	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	25	3	0	1.7	0.8	0.0	2.5	-	-	-	-
1/1	93	93	2	0	0	0.7	0.4	0.0	1.1	44.5	1.6	0.4	2.0
2/1	56	56	-	-	-	0.4	0.2	-	0.6	37.4	0.9	0.2	1.1
3/1+3/2	61	61	23	3	0	0.3	0.0	0.0	0.4	20.7	0.4	0.0	0.5
4/1	40	40	-	-	-	0.3	0.1	-	0.4	36.0	0.7	0.1	0.8
5/1	53	53	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	125	125	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	50	50	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	22	22	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	89.4	Total Delay for Signalled Lanes (pcuHr):			2.48	Cycle Time (s): 66				
			PRC Over All Lanes (%):	89.4	Total Delay Over All Lanes(pcuHr):			2.48					

Full Input Data And Results

Scenario 7: '2023 Reference Case 7-8AM' (FG7: '23RC\_7-8AM', Plan 1: '5 stages')

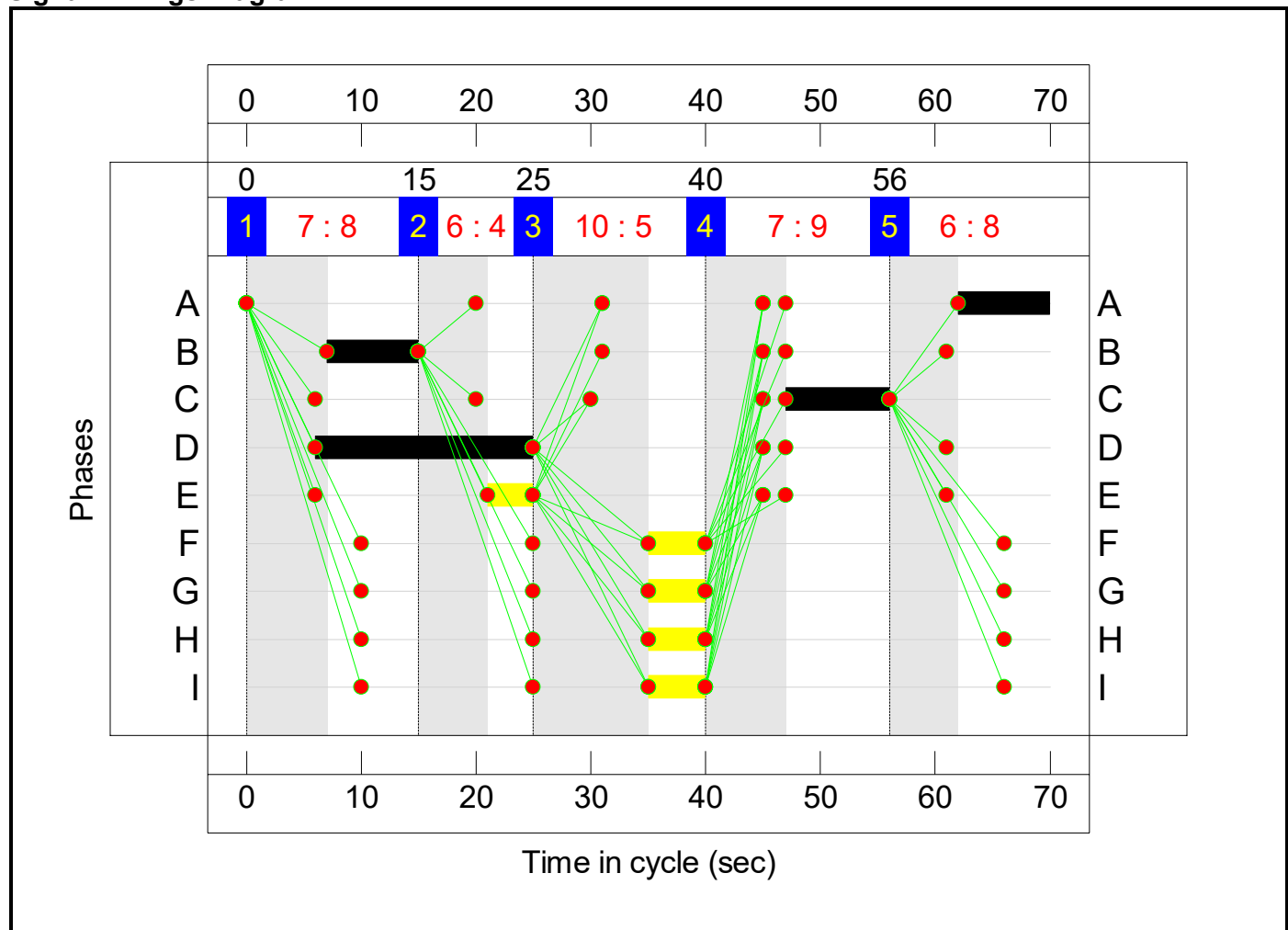
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	8	4	5	9	8
Change Point	0	15	25	40	56

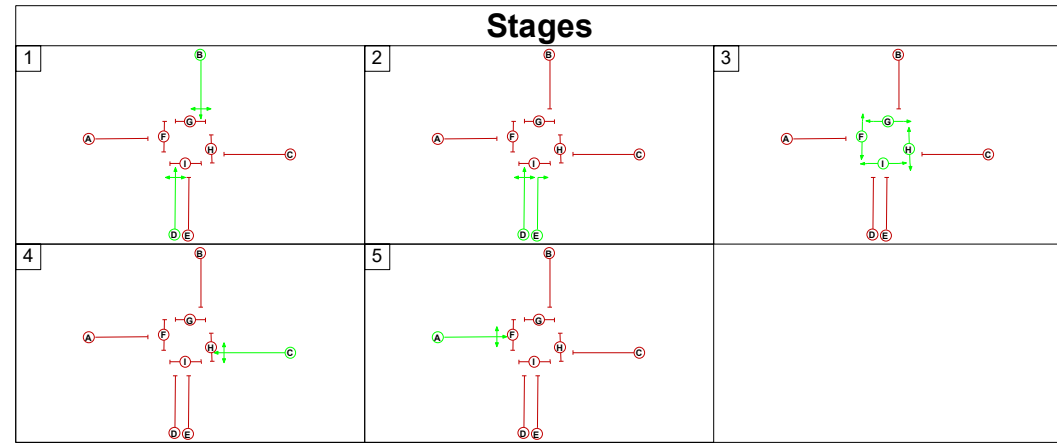
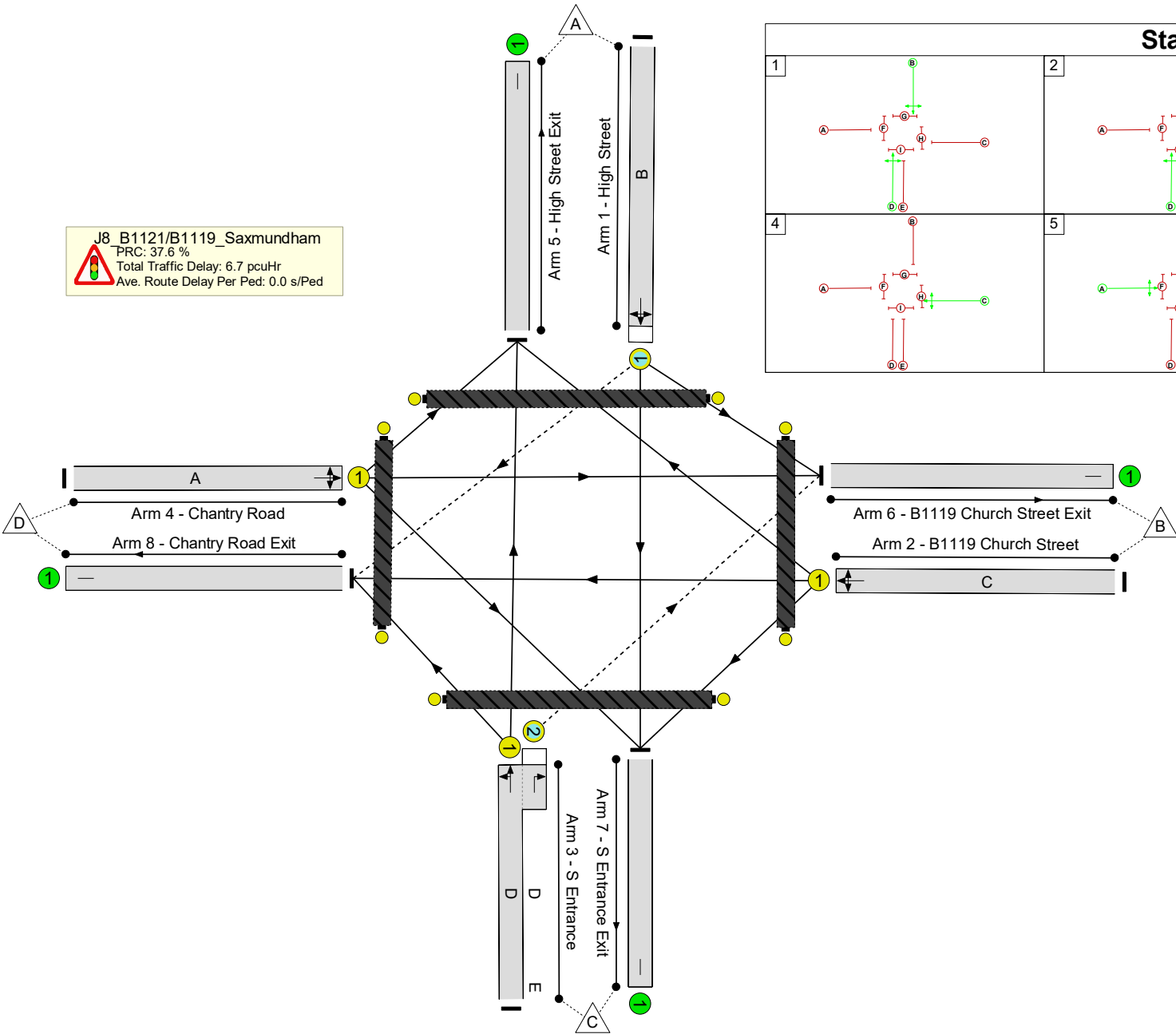
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 37.6 %  
 Total Traffic Delay: 6.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	8	-	136	1743	208	65.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	9	-	162	1800	257	63.0%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	19	4	124	1846:1875	275+293	21.8 : 21.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	8	-	135	1792	230	58.6%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	143	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

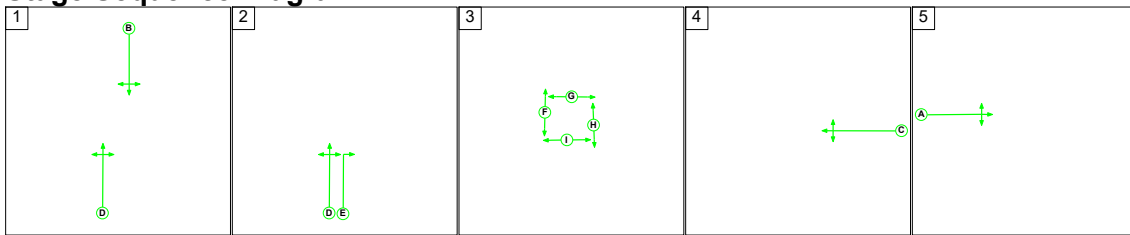
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	<b>63</b>	<b>7</b>	<b>1</b>	<b>4.1</b>	<b>2.6</b>	<b>0.0</b>	<b>6.7</b>	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	<b>63</b>	<b>7</b>	<b>1</b>	<b>4.1</b>	<b>2.6</b>	<b>0.0</b>	<b>6.7</b>	-	-	-	-
1/1	136	136	7	0	0	1.1	0.9	0.0	2.0	53.6	2.5	0.9	3.4
2/1	162	162	-	-	-	1.3	0.8	-	2.1	46.9	2.9	0.8	3.8
3/1+3/2	124	124	56	7	1	0.6	0.1	0.0	0.8	23.6	0.9	0.1	1.0
4/1	135	135	-	-	-	1.1	0.7	-	1.8	47.3	2.4	0.7	3.1
5/1	134	134	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	143	143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	37.6	Total Delay for Signalled Lanes (pcuHr):			6.72	Cycle Time (s): 70				
			PRC Over All Lanes (%):	37.6	Total Delay Over All Lanes(pcuHr):			6.72					

Full Input Data And Results

Scenario 8: '2023 Reference Case 8-9AM' (FG8: '23RC\_8-9AM', Plan 1: '5 stages')

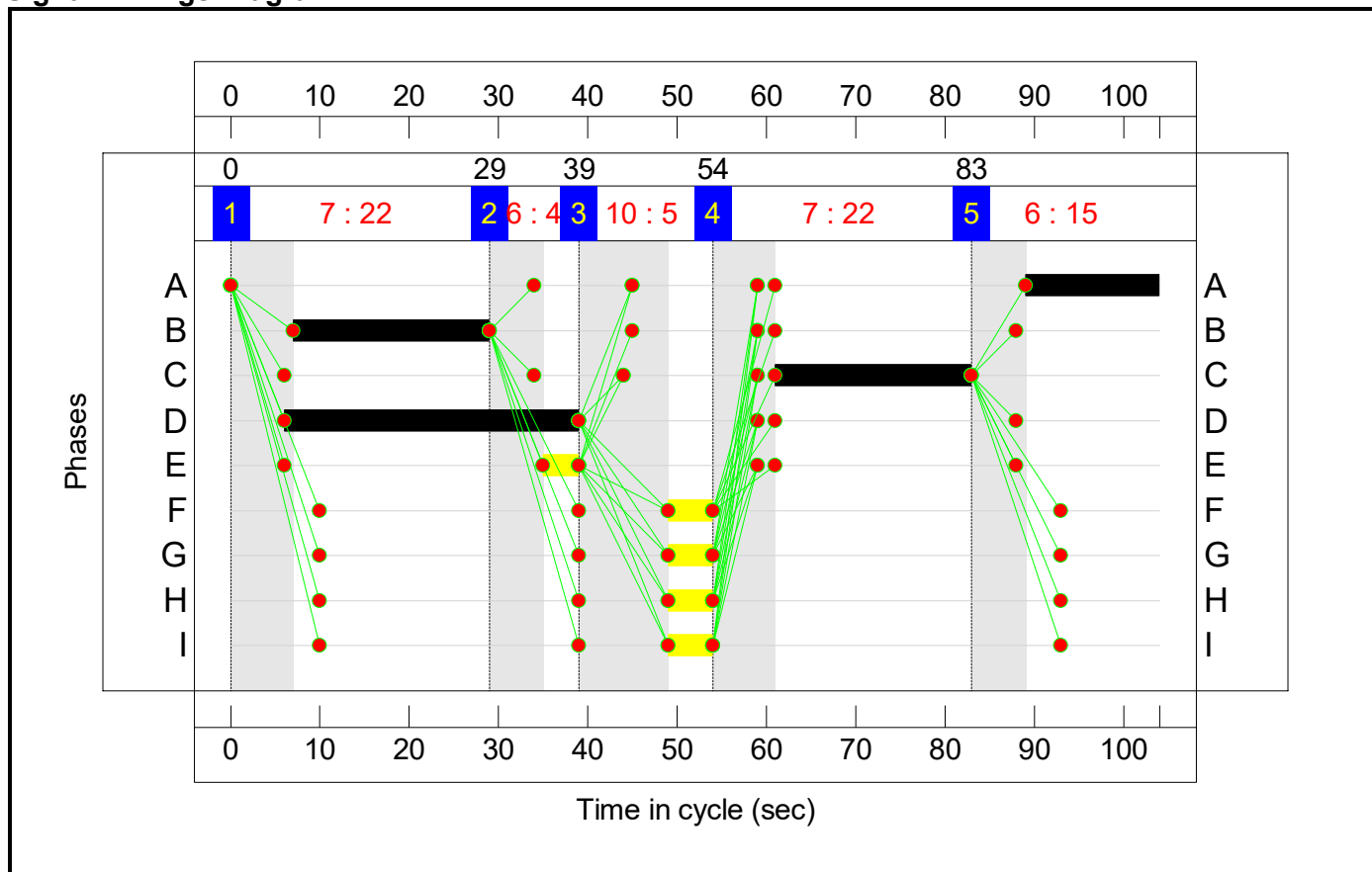
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	22	4	5	22	15
Change Point	0	29	39	54	83

Signal Timings Diagram

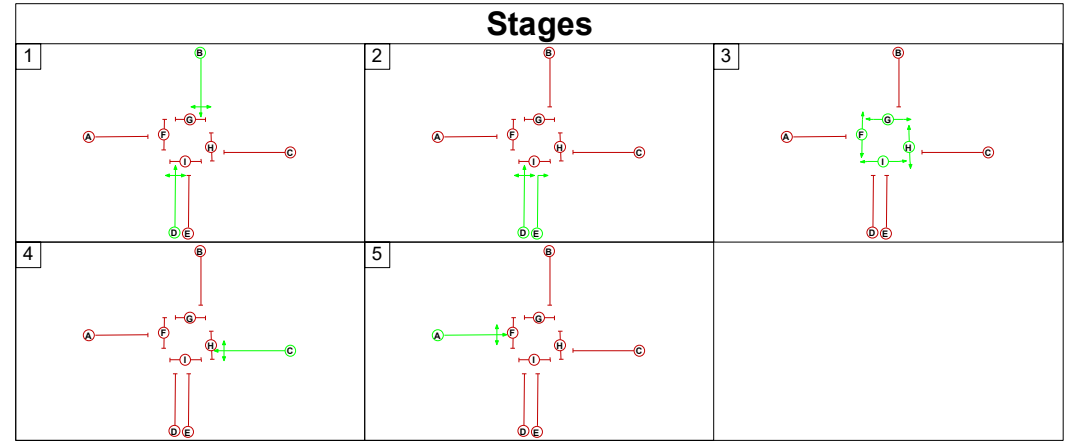
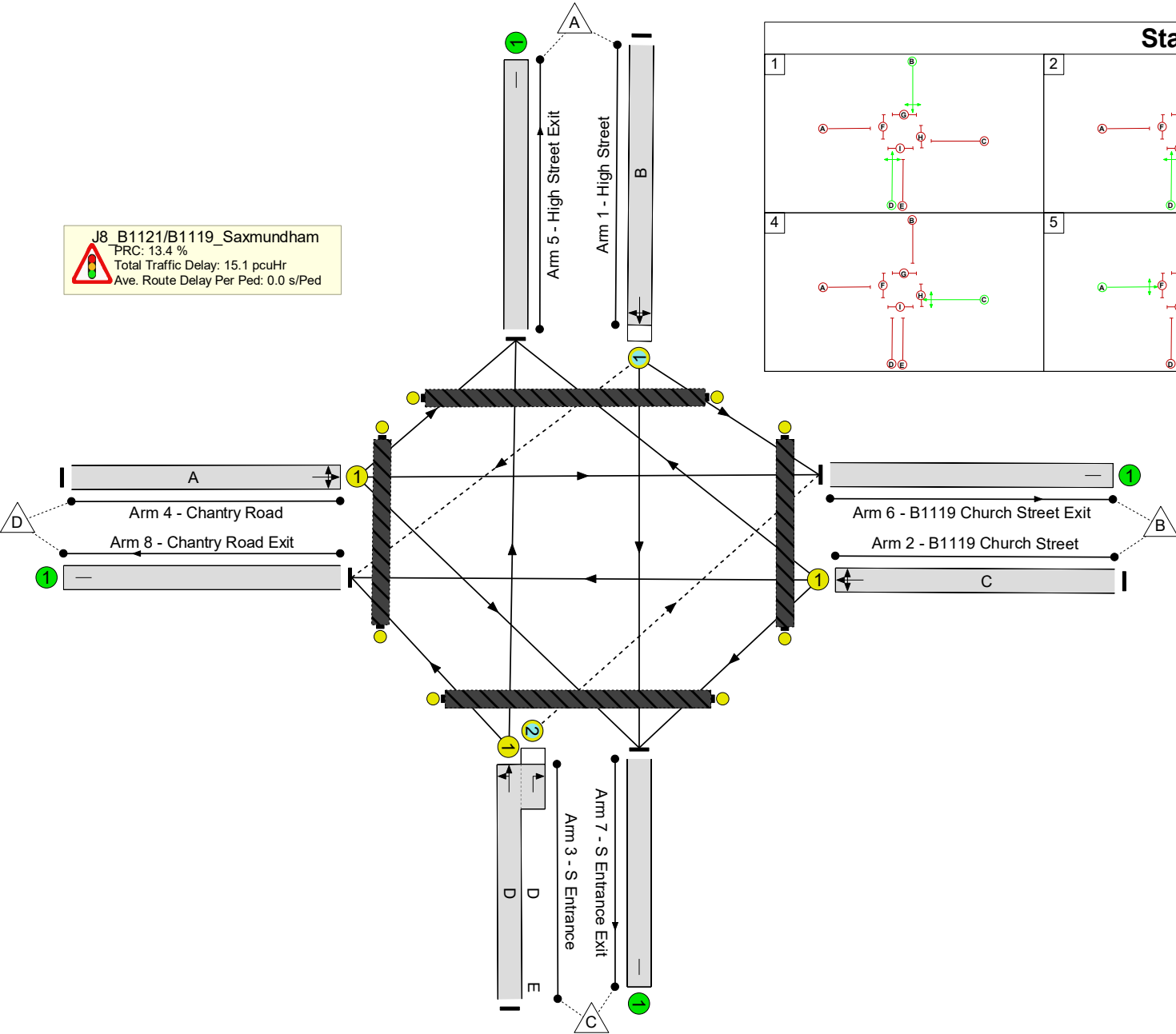




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 13.4 %  
 Total Traffic Delay: 15.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

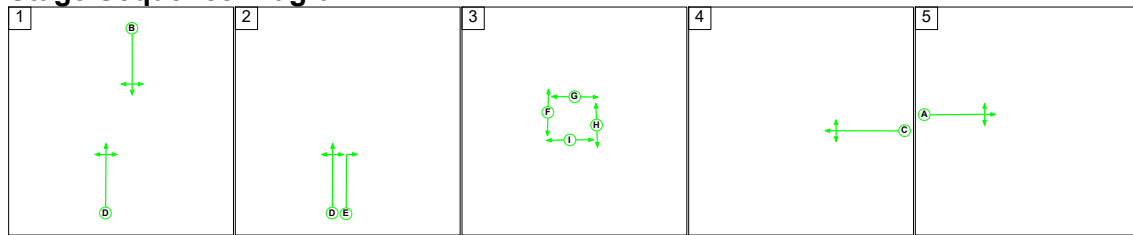
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	22	-	209	1699	263	79.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	22	-	298	1800	398	74.9%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	33	4	267	1835:1875	434+236	39.8 : 39.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	15	-	207	1745	268	77.1%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	219	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 9: '2023 Reference Case 3-4PM' (FG9: '23RC\_3-4PM', Plan 1: '5 stages')

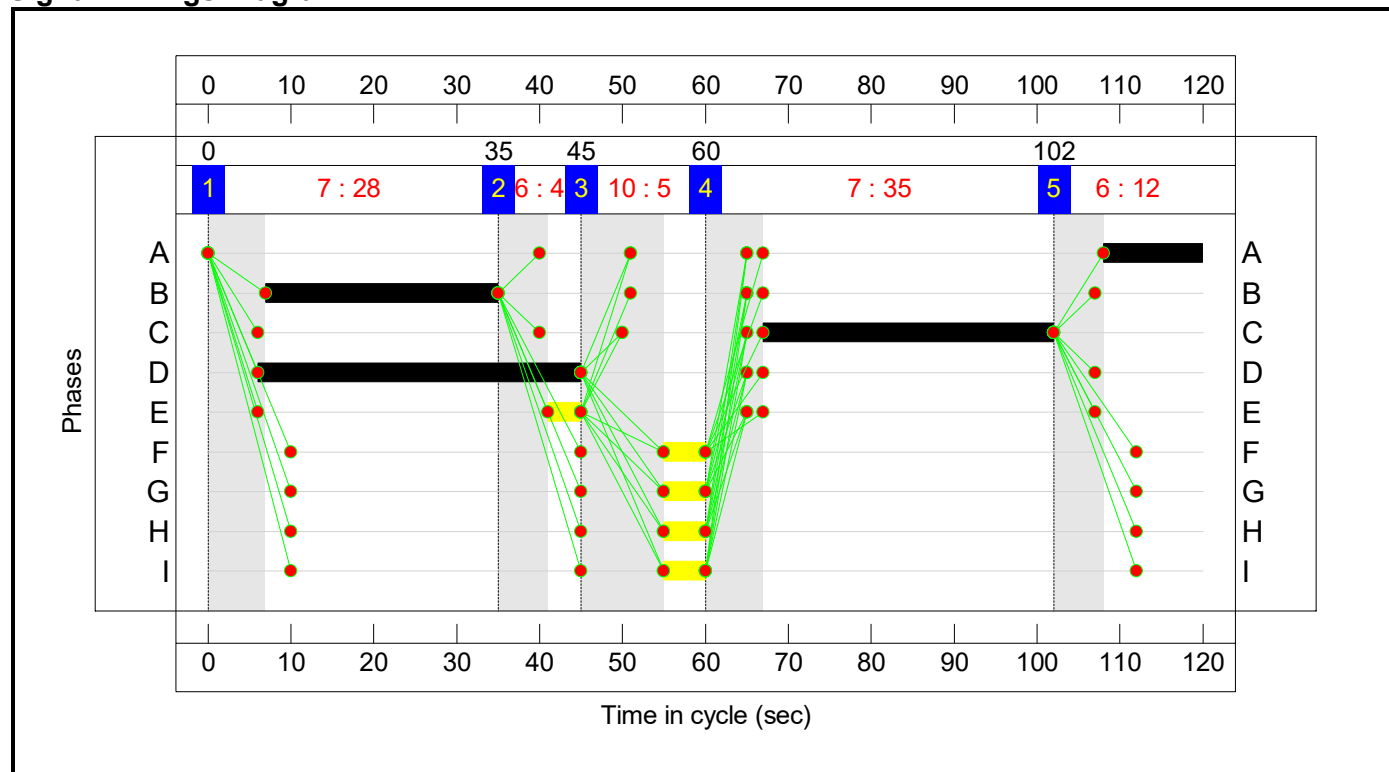
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	5	35	12
Change Point	0	35	45	60	102

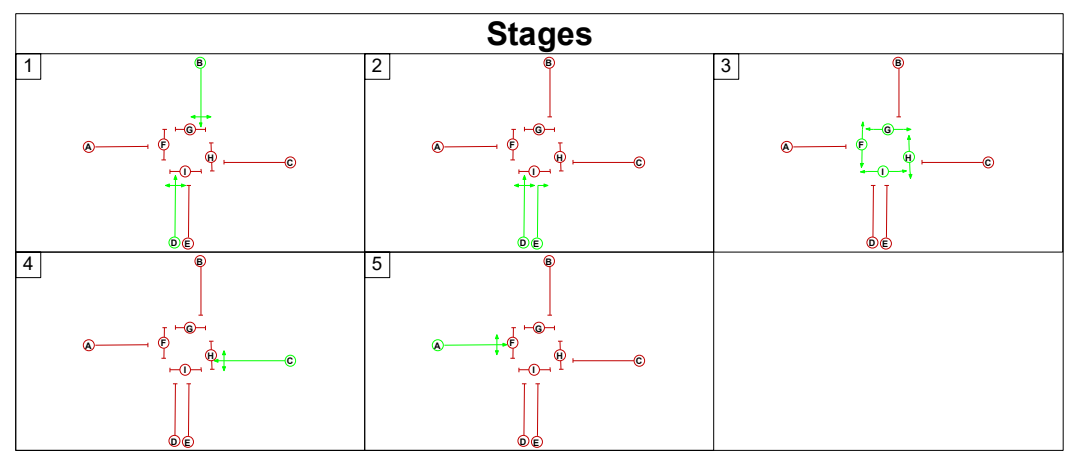
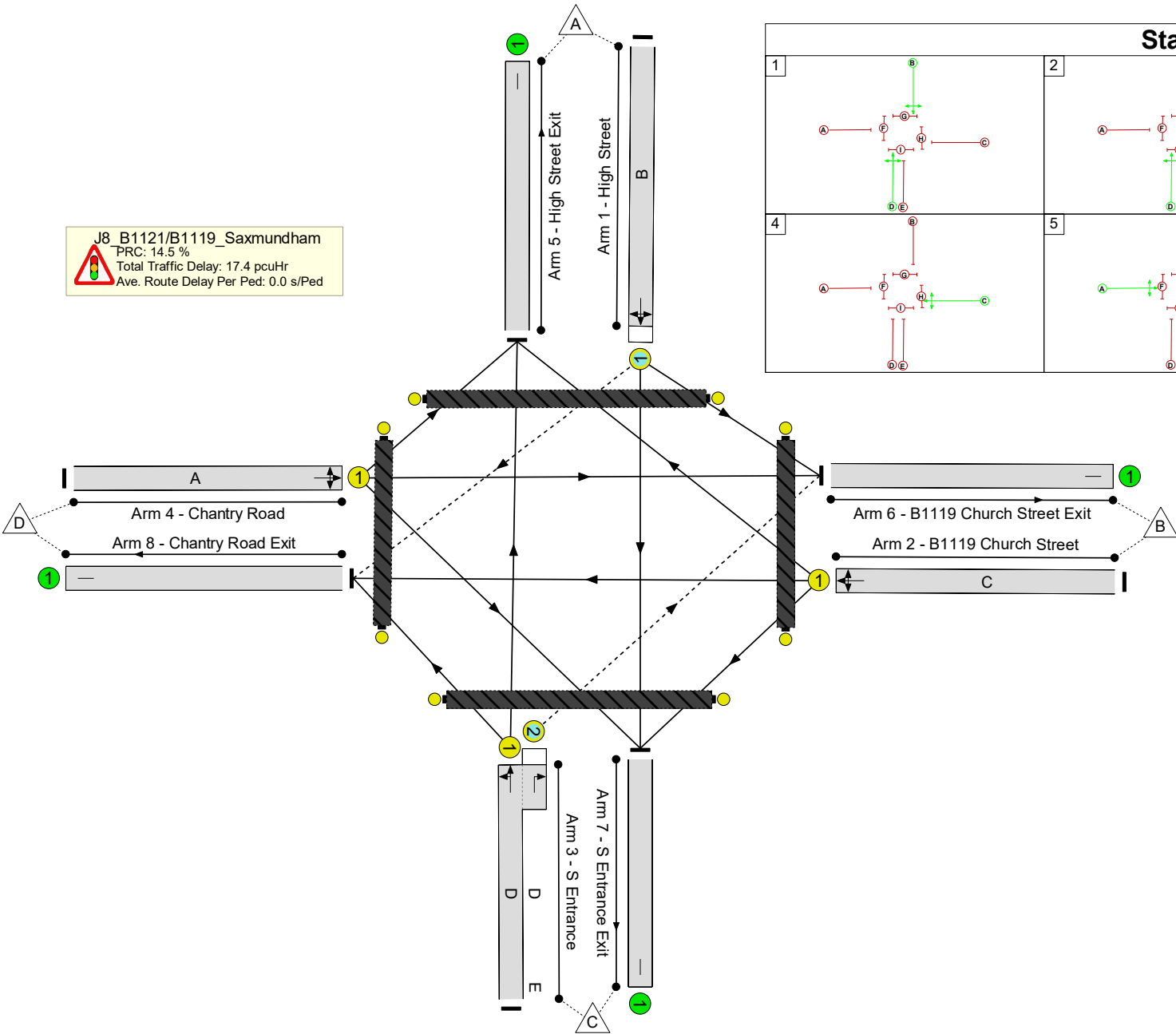
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

# Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 14.5 %  
 Total Traffic Delay: 17.4 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	28	-	240	1652	305	78.6%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	409	1800	540	75.7%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	39	4	294	1802:1875	301+255	52.8 : 52.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	148	1786	193	76.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	226	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

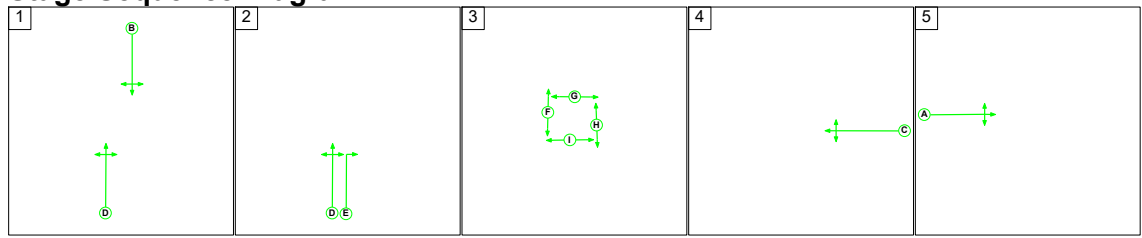




Full Input Data And Results

Scenario 10: '2023 Reference Case 5-6PM' (FG10: '23RC\_5-6PM', Plan 1: '5 stages')

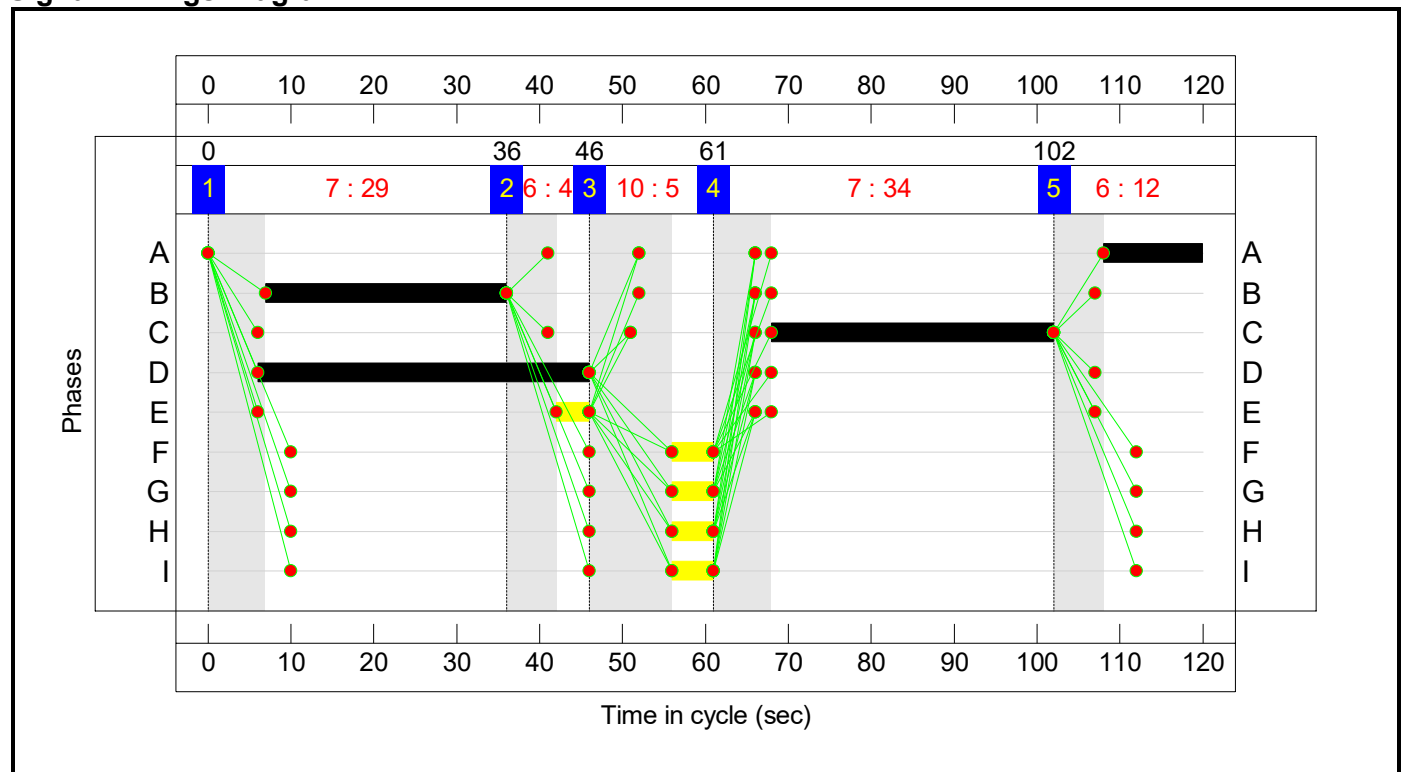
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	29	4	5	34	12
Change Point	0	36	46	61	102

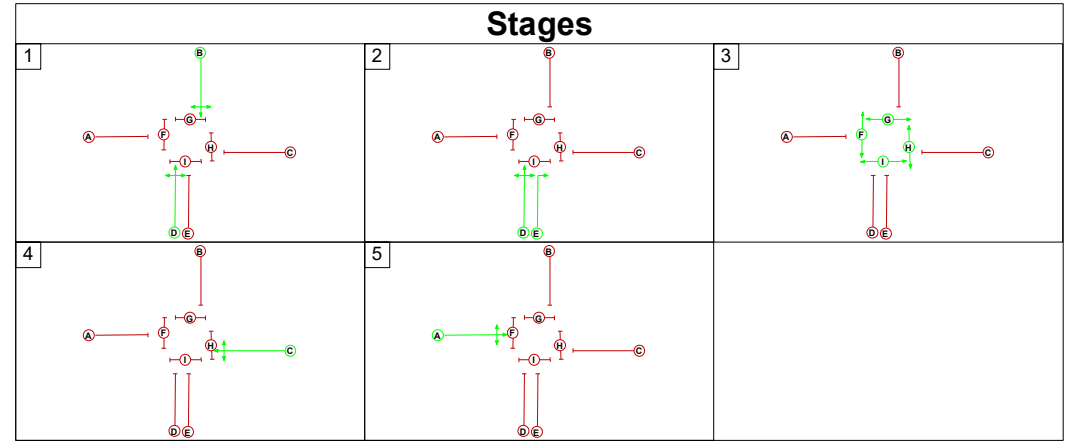
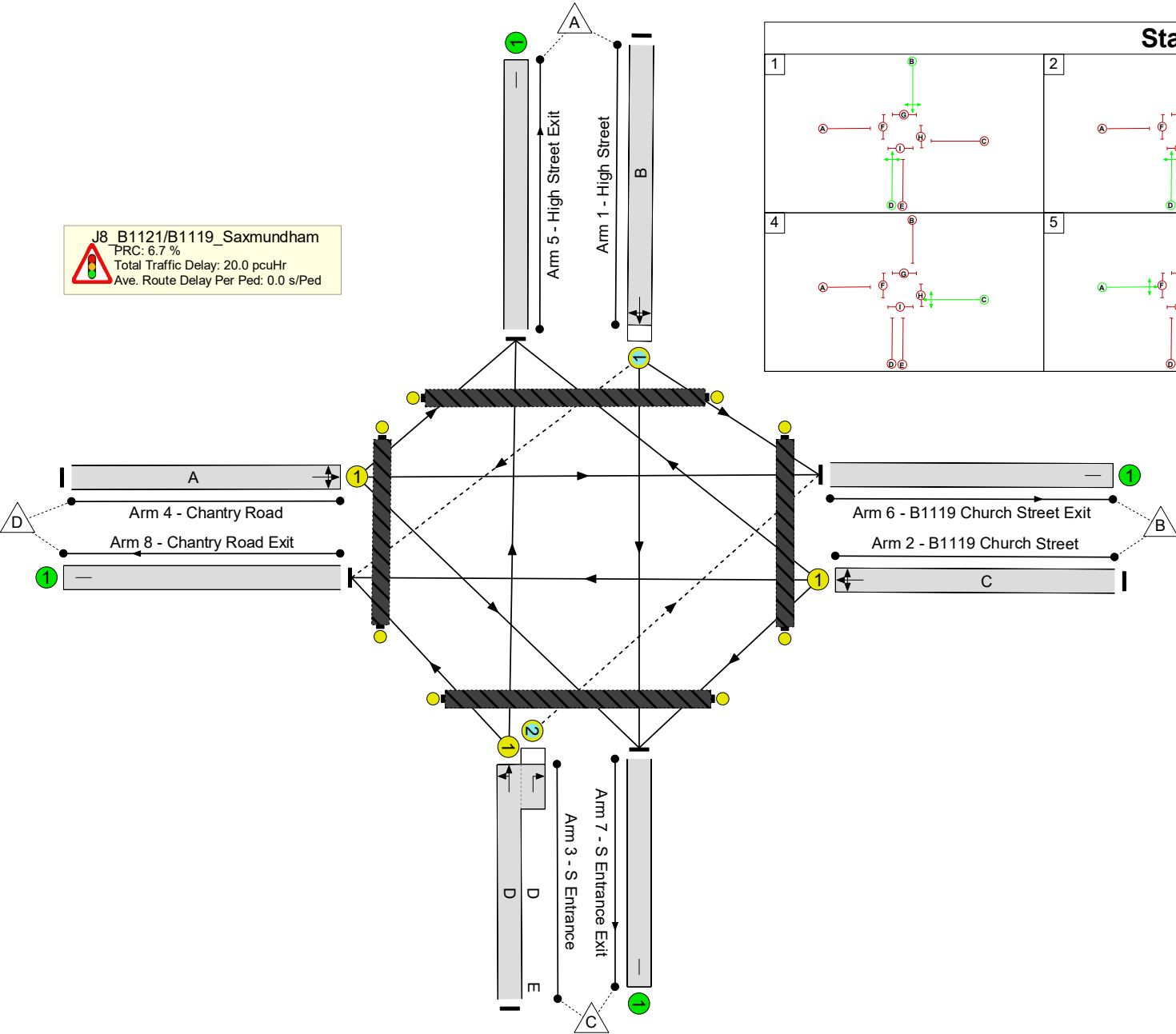
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 6.7 %  
 Total Traffic Delay: 20.0 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

**Network Results**

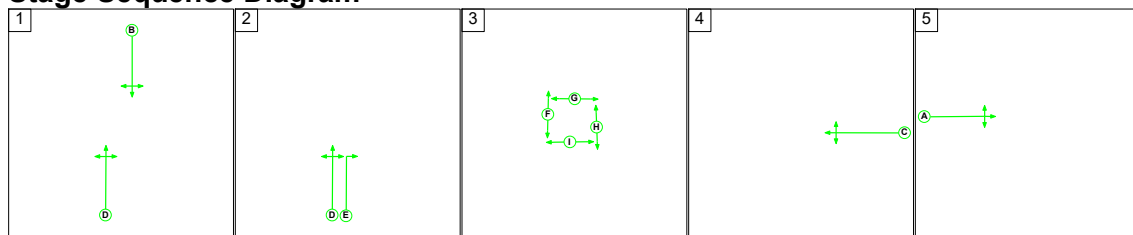
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	29	-	266	1668	322	82.6%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	34	-	432	1800	525	82.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	40	4	276	1842:1875	353+238	46.7 : 46.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	167	1828	198	84.3%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 11: '2023 Early Years 6-7AM' (FG11: '23EY\_6-7AM', Plan 1: '5 stages')

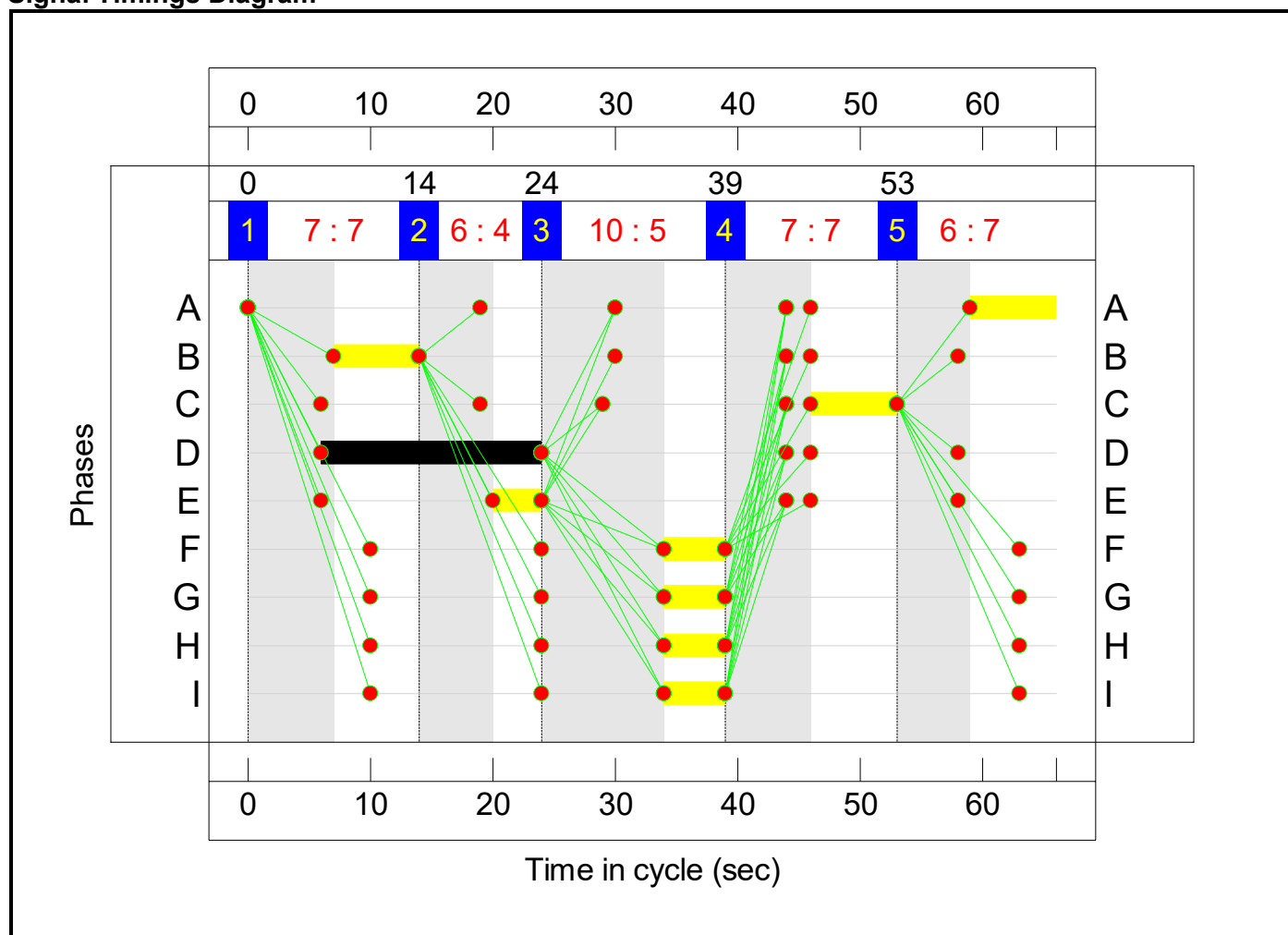
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

Signal Timings Diagram

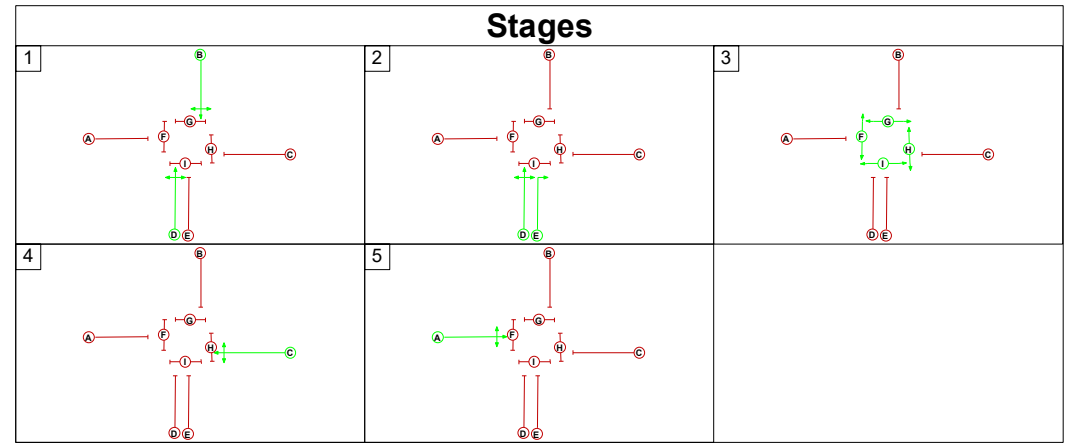
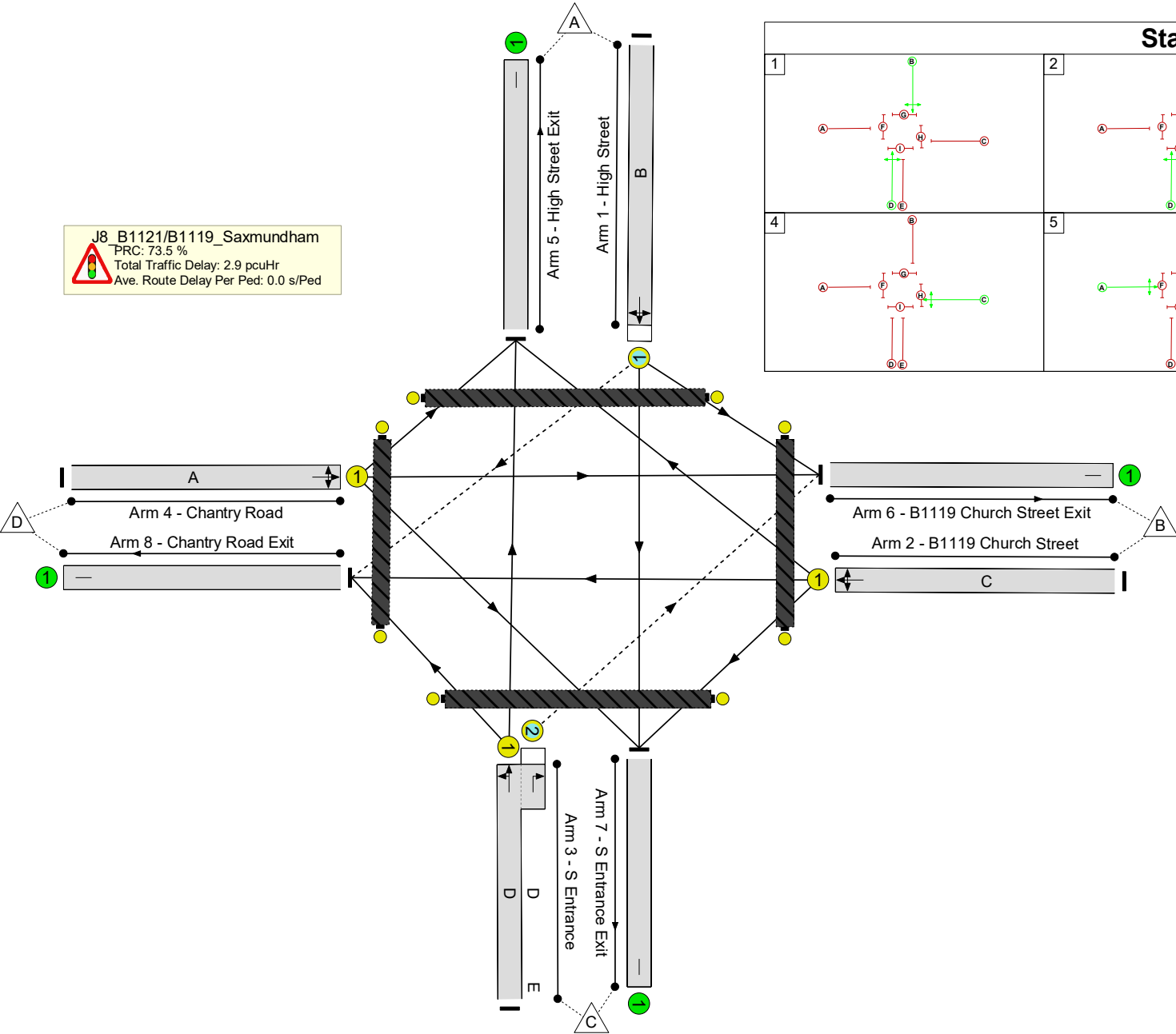


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 73.5 %  
 Total Traffic Delay: 2.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	51.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	51.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	101	1606	195	51.9%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	64	1800	218	29.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	89	1852:1875	210+325	16.6 : 16.6%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	40	1831	222	18.0%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	55	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	22	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

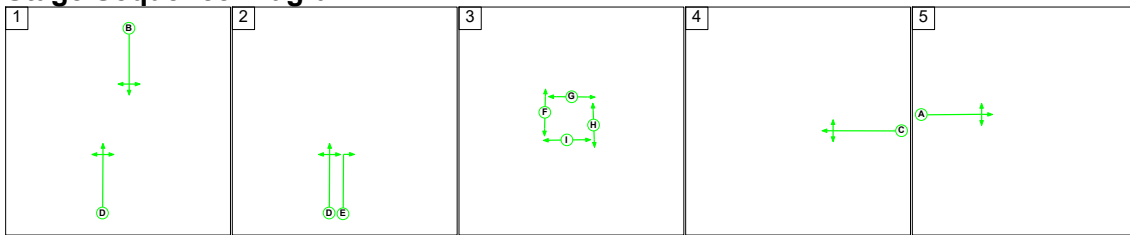
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	49	7	1	1.9	0.9	0.0	2.9	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	49	7	1	1.9	0.9	0.0	2.9	-	-	-	-
1/1	101	101	2	0	0	0.8	0.5	0.0	1.3	46.2	1.7	0.5	2.2
2/1	64	64	-	-	-	0.5	0.2	-	0.7	38.1	1.1	0.2	1.3
3/1+3/2	89	89	47	7	1	0.4	0.1	0.0	0.6	22.3	0.7	0.1	0.8
4/1	40	40	-	-	-	0.3	0.1	-	0.4	36.0	0.7	0.1	0.8
5/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	55	55	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	22	22	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	73.5	Total Delay for Signalled Lanes (pcuHr):			2.93	Cycle Time (s): 66				
			PRC Over All Lanes (%):	73.5	Total Delay Over All Lanes(pcuHr):			2.93					

Full Input Data And Results

Scenario 12: '2023 Early Years 7-8AM' (FG12: '23EY\_7-8AM', Plan 1: '5 stages')

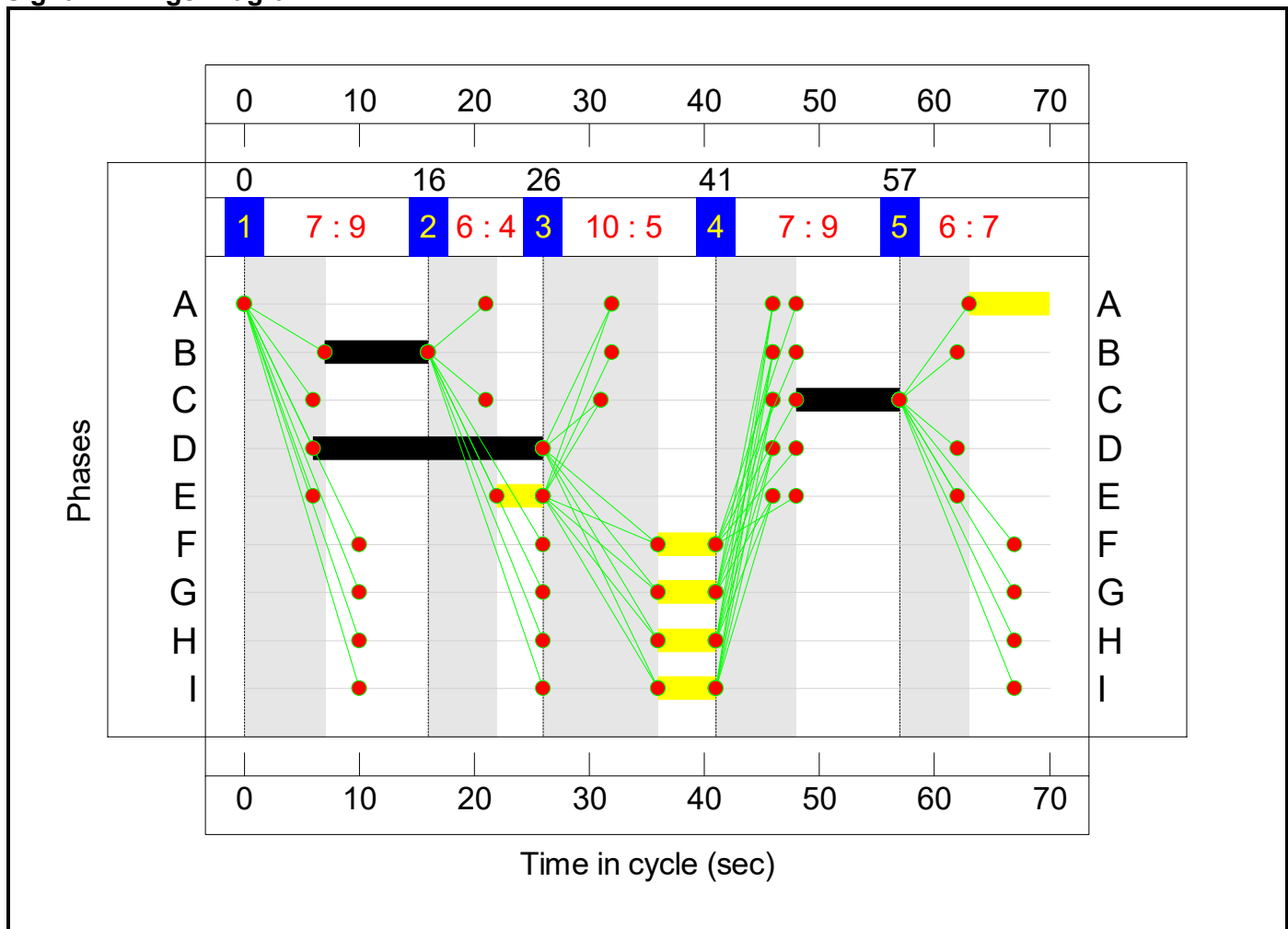
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4	5
Duration	9	4	5	9	7
Change Point	0	16	26	41	57

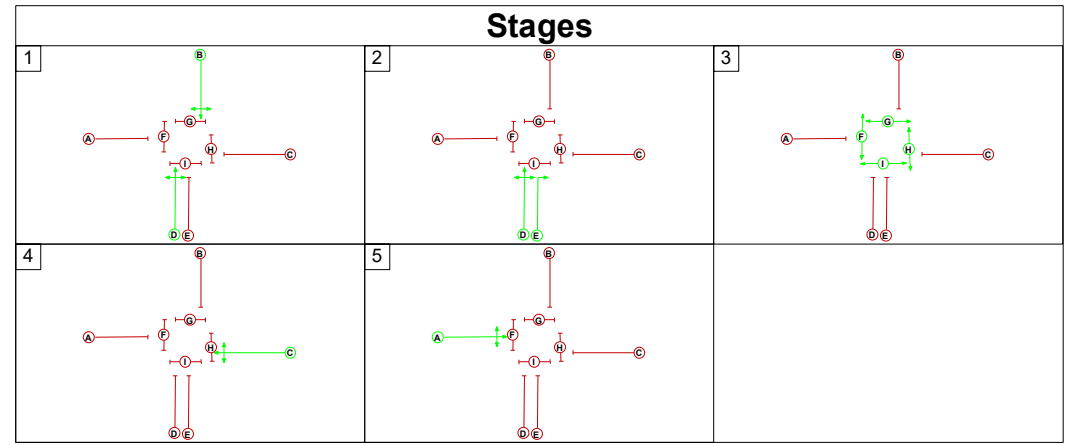
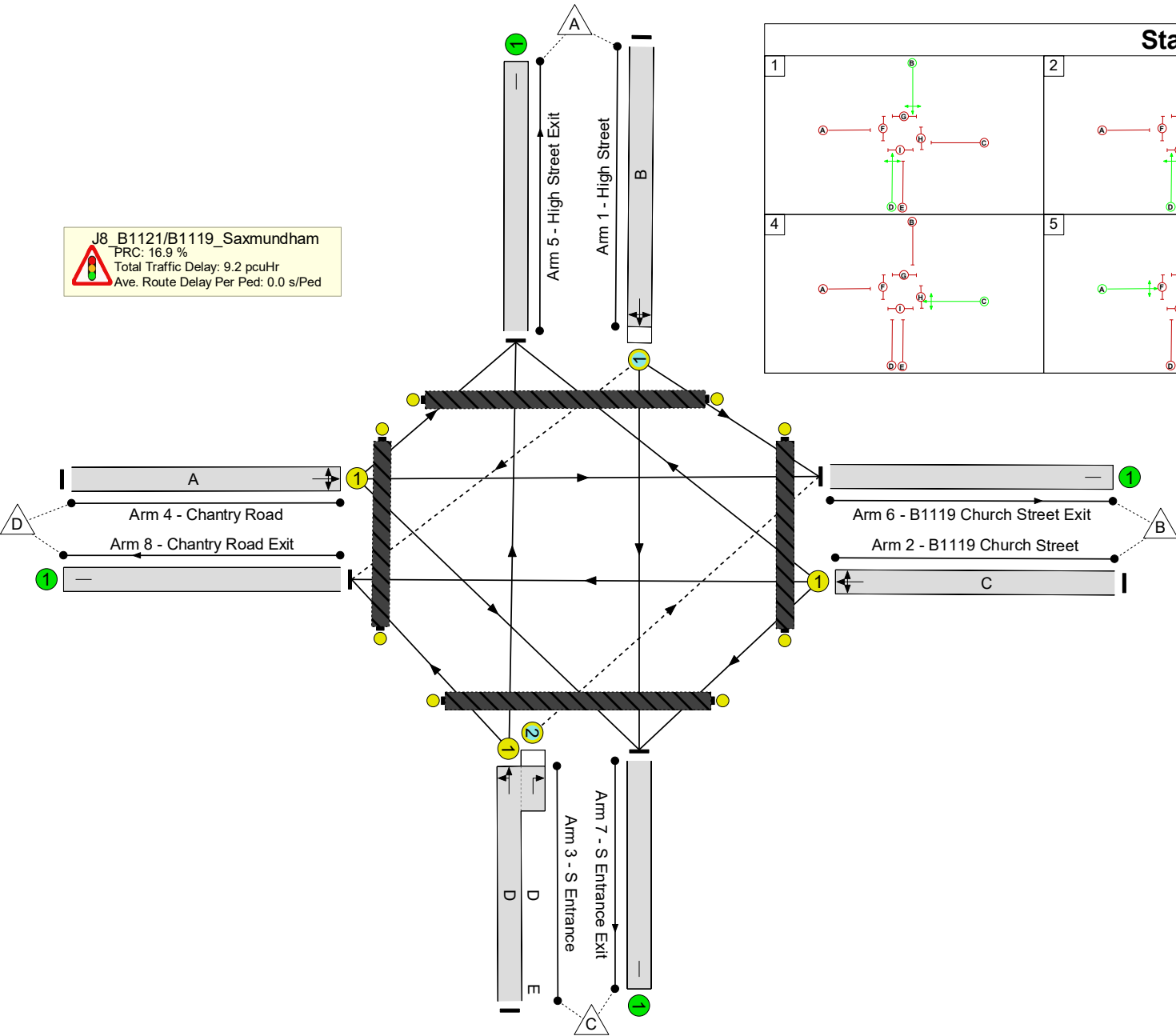
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

# Full Input Data And Results


**J8\_B1121/B1119\_Saxmundham**  
 PRC: 16.9 %  
 Total Traffic Delay: 9.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	9	-	151	1722	199	75.9%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	9	-	198	1800	257	77.0%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	20	4	173	1853:1875	196+311	34.1 : 34.1%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	135	1792	205	65.9%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	157	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	267	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	165	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

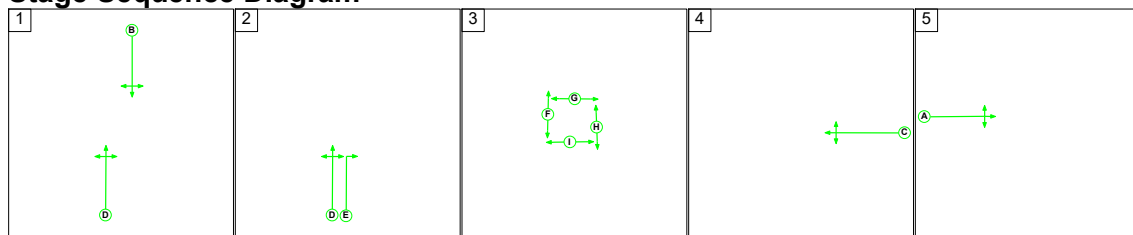




Full Input Data And Results

Scenario 13: '2023 Early Years 8-9AM' (FG13: '23EY\_8-9AM', Plan 1: '5 stages')

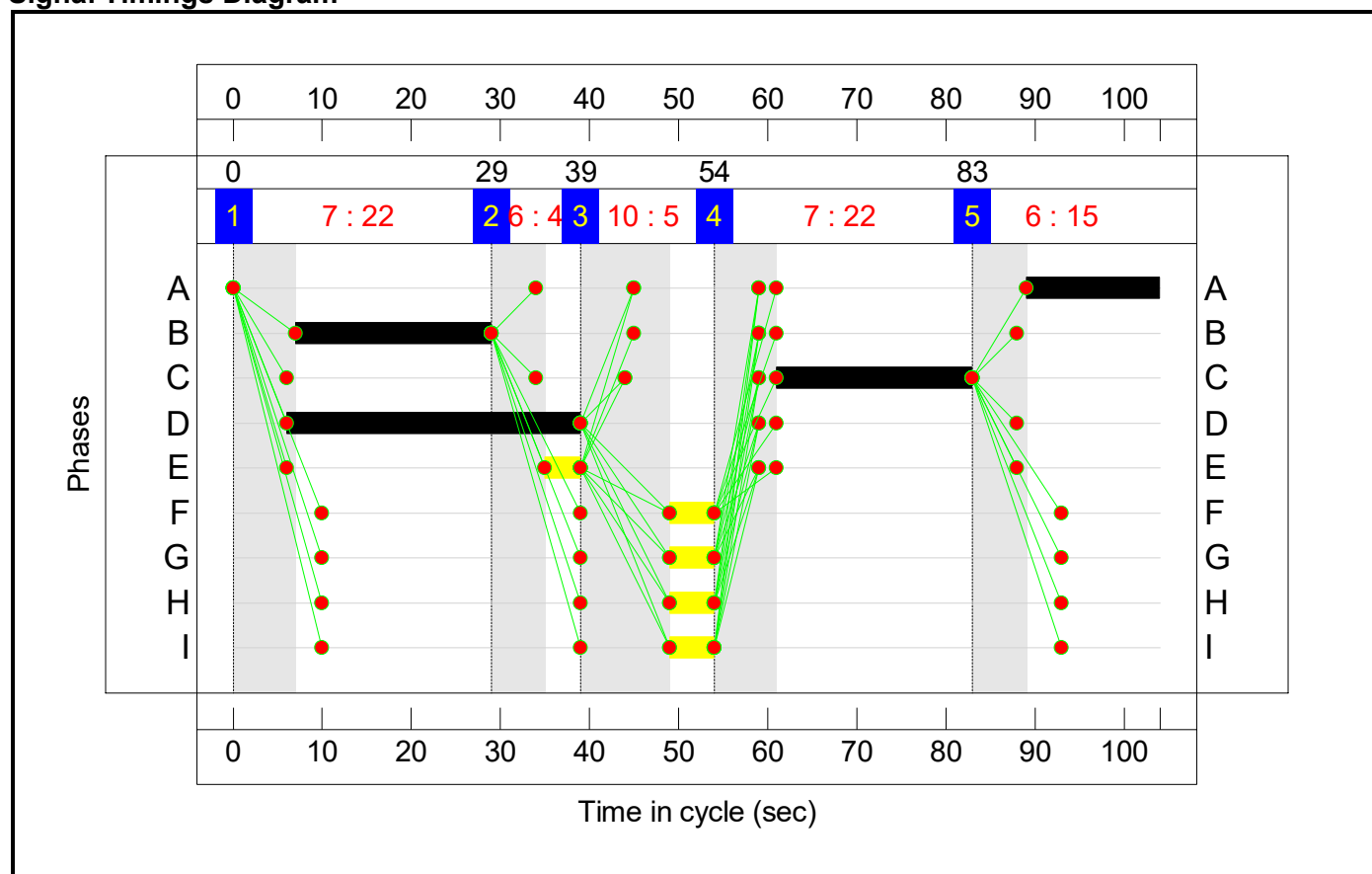
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	22	4	5	22	15
Change Point	0	29	39	54	83

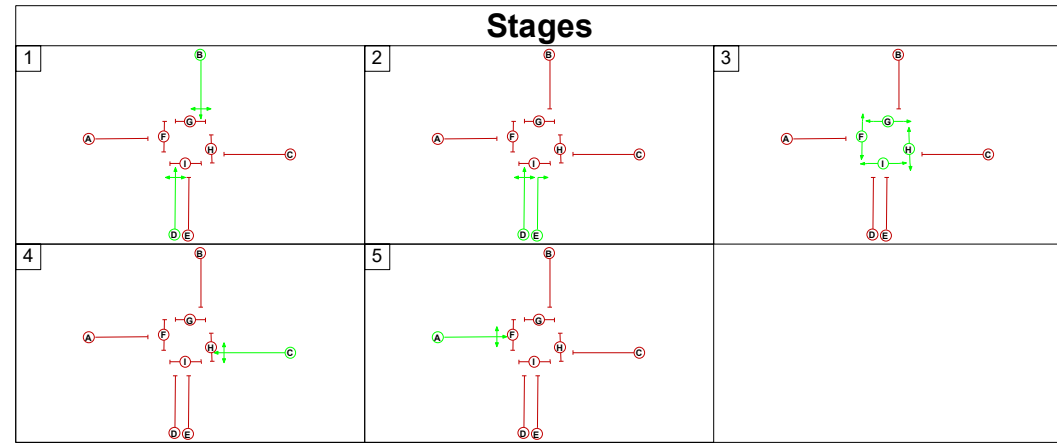
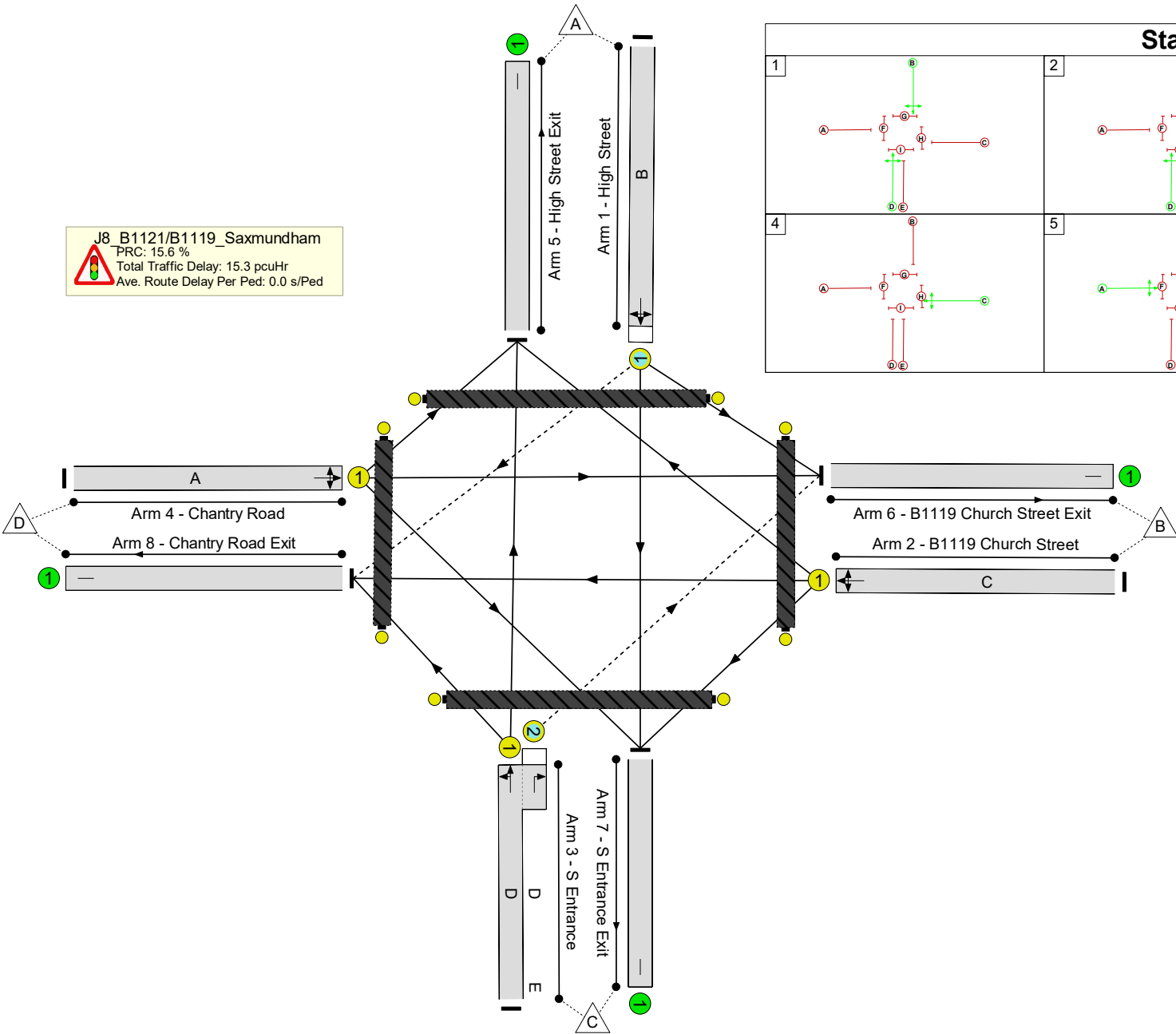
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 15.6 %  
 Total Traffic Delay: 15.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

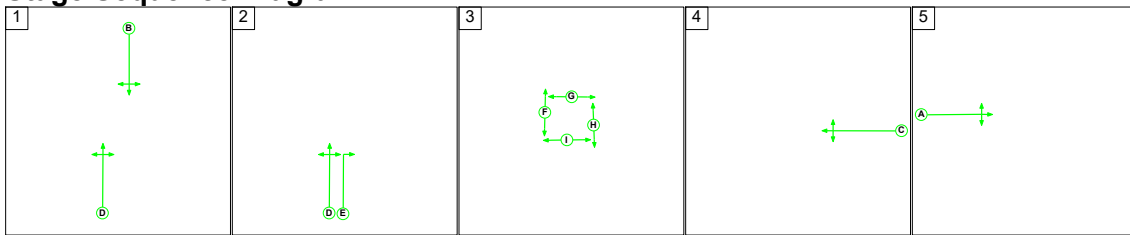
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	22	-	202	1707	264	76.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	22	-	310	1800	398	77.9%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	33	4	284	1836:1875	417+260	41.9 : 41.9%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	15	-	207	1745	268	77.1%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	323	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	332	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 14: '2023 Early Years 3-4PM' (FG14: '23EY\_3-4PM', Plan 1: '5 stages')

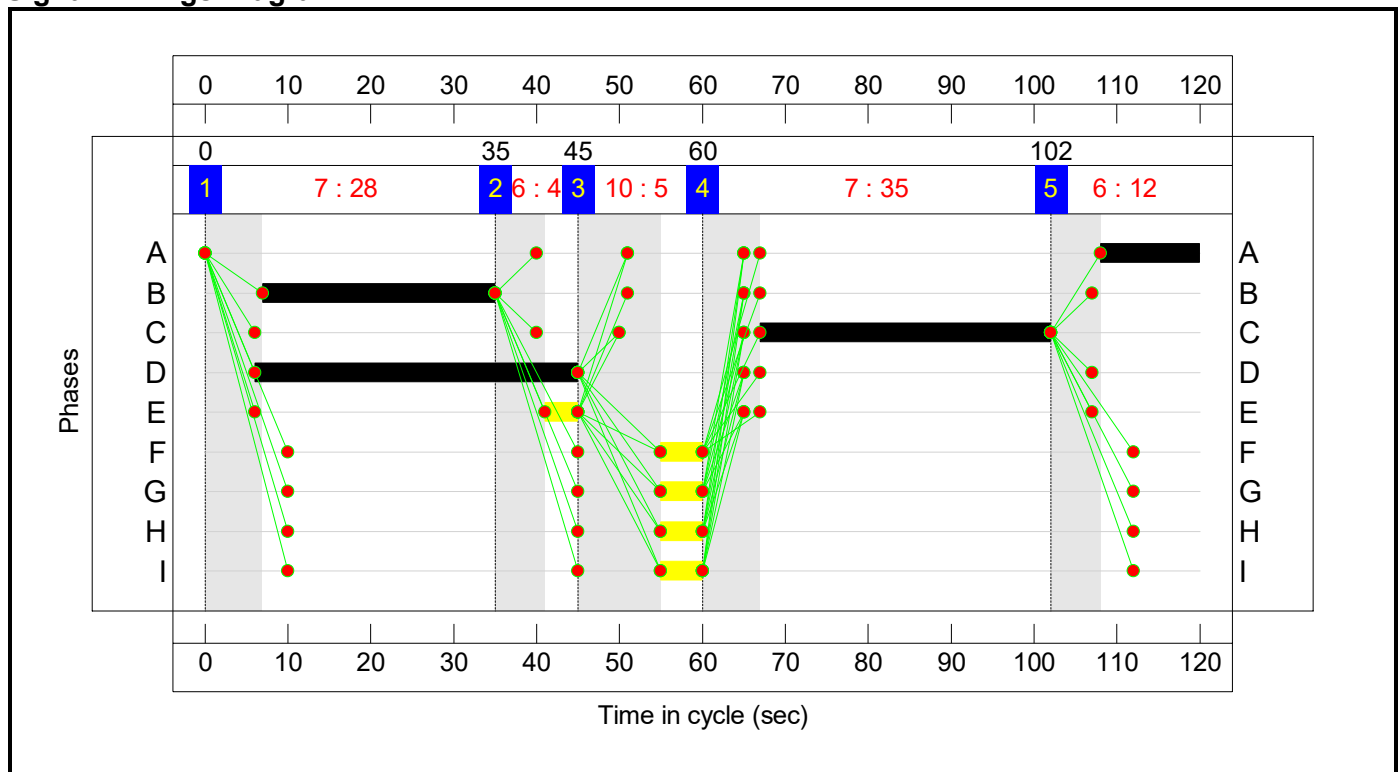
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	5	35	12
Change Point	0	35	45	60	102

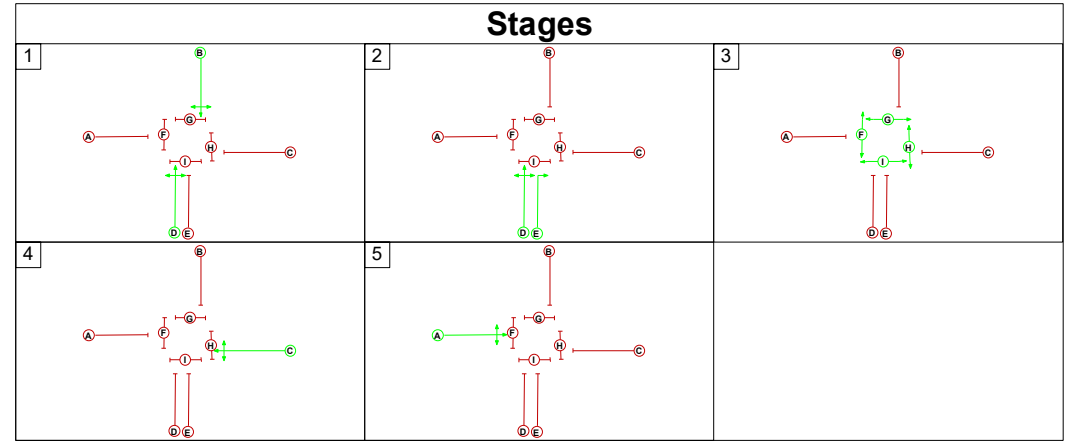
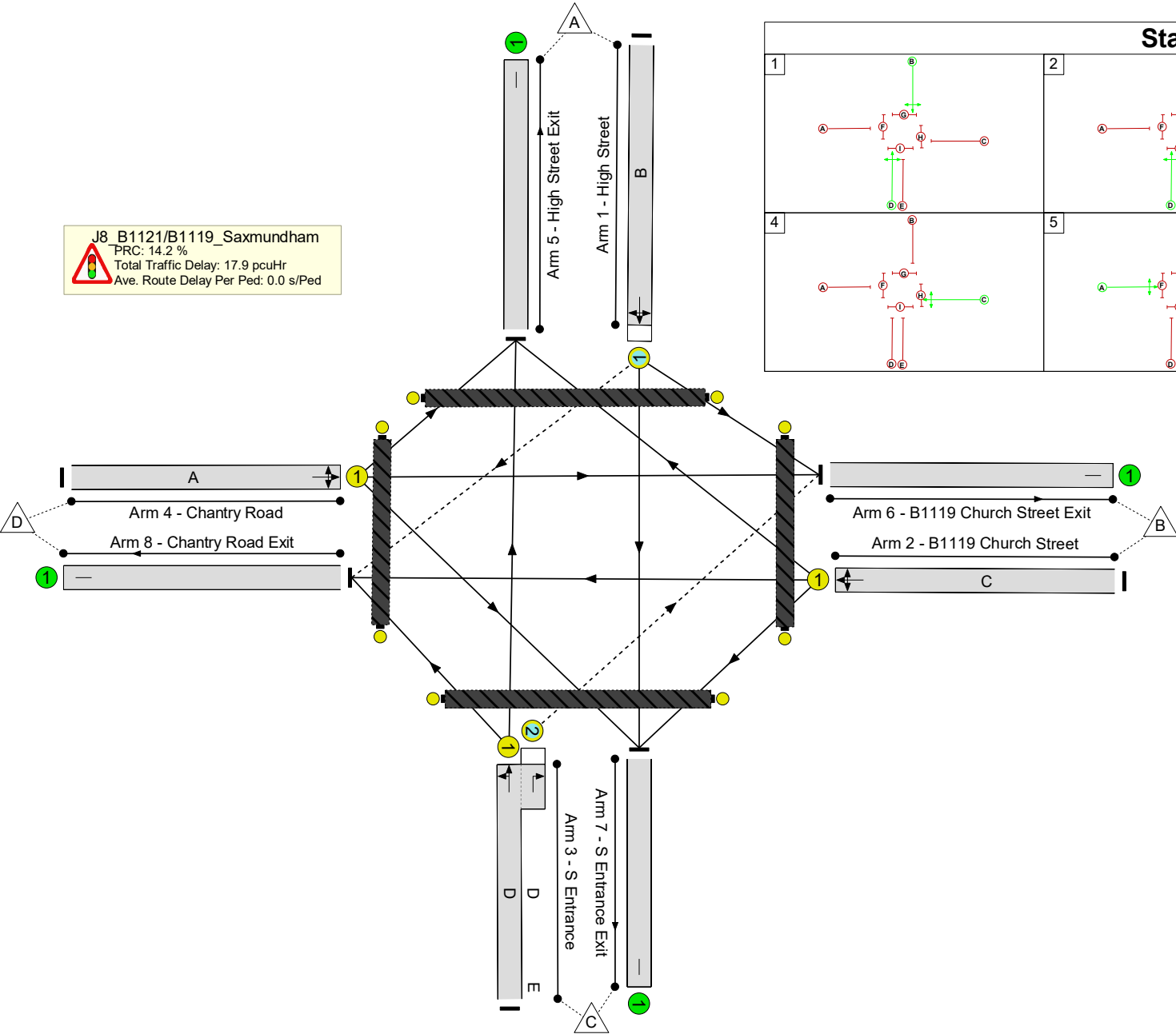
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 14.2 %  
 Total Traffic Delay: 17.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

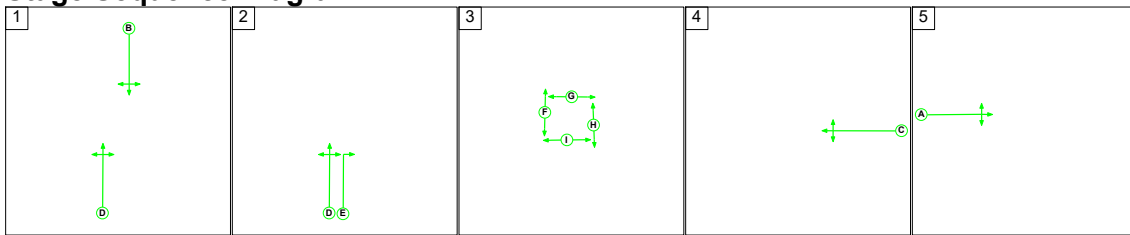
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.8%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.8%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	28	-	240	1648	305	78.8%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	419	1800	540	77.6%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	39	4	302	1802:1875	285+257	55.7 : 55.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	148	1786	193	76.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	386	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 15: '2023 Early Years 5-6PM' (FG15: '23EY\_5-6PM', Plan 1: '5 stages')

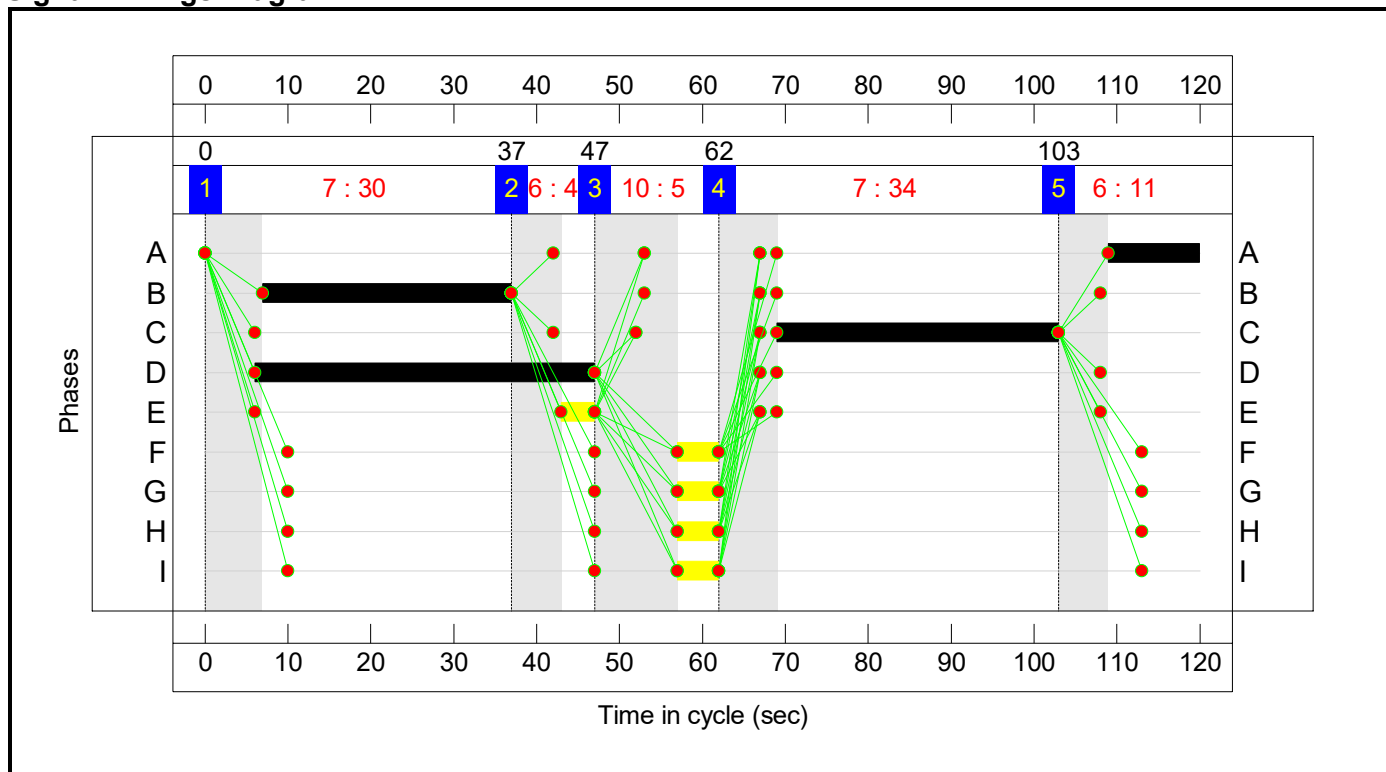
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	30	4	5	34	11
Change Point	0	37	47	62	103

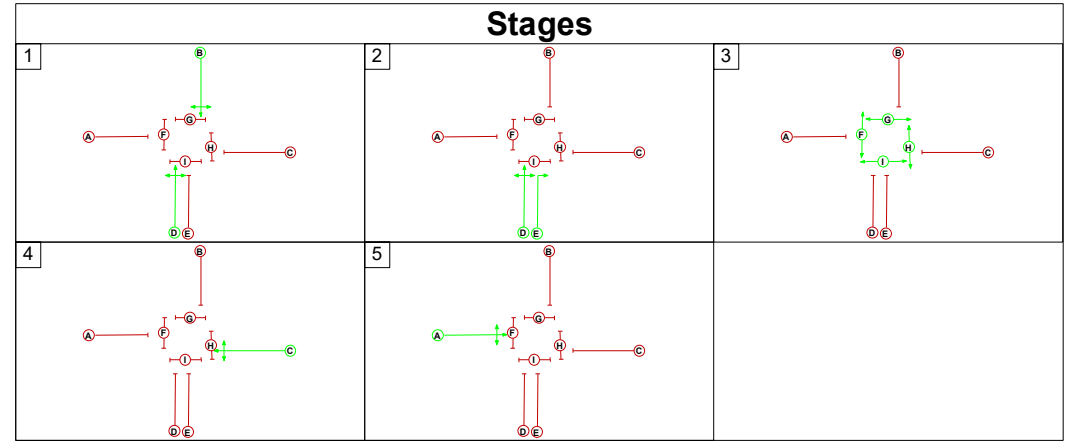
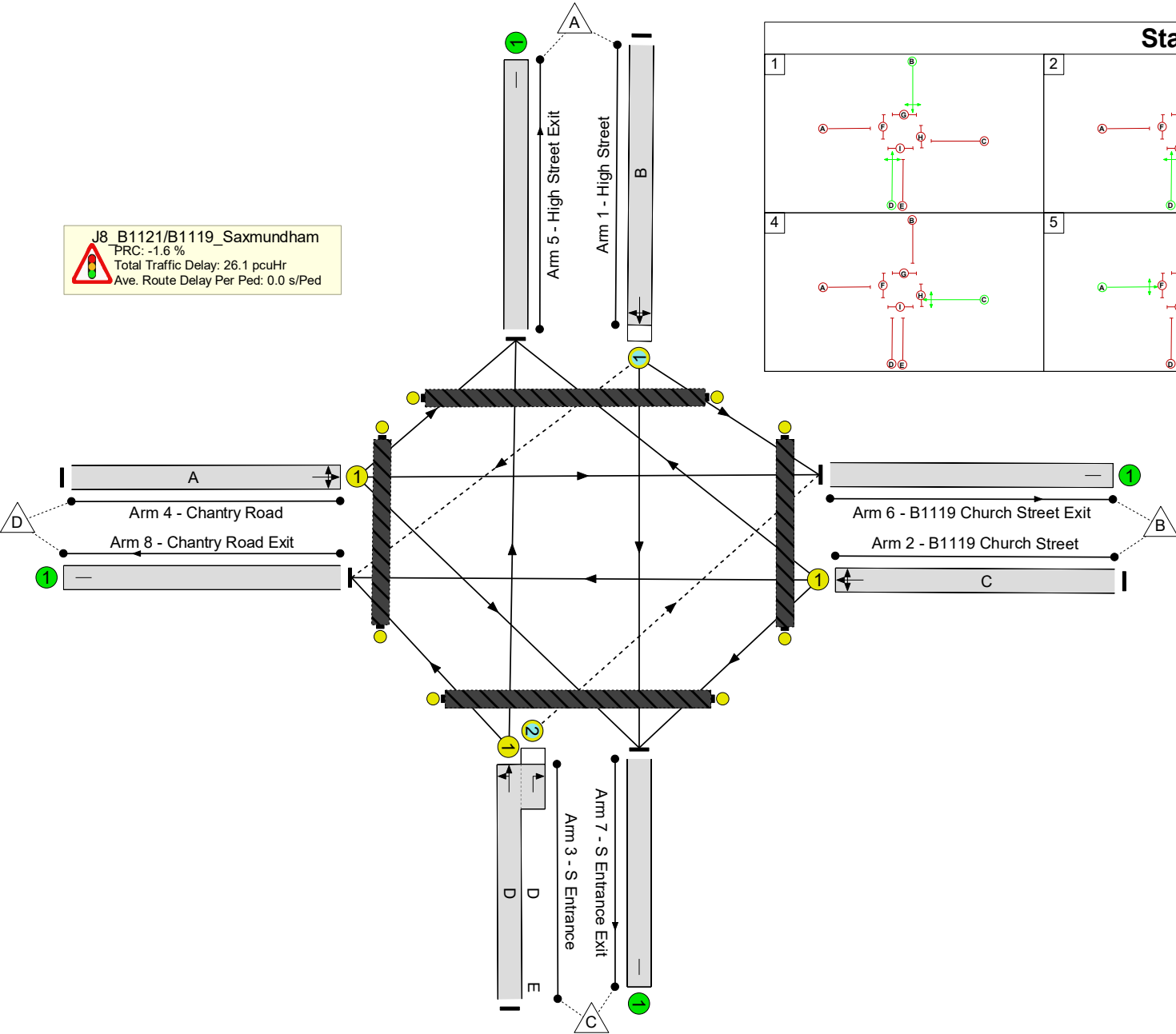
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: -1.6 %  
 Total Traffic Delay: 26.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

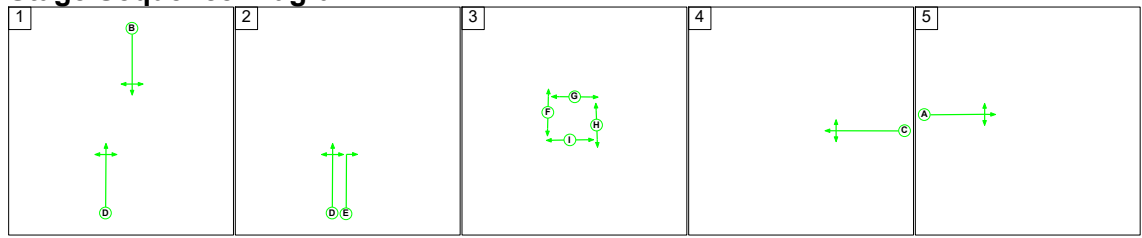
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	30	-	287	1666	327	87.8%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	34	-	480	1800	525	91.4%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	41	4	325	1856:1875	379+219	54.4 : 54.4%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	11	-	167	1828	183	91.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	282	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 16: '2028 Reference Case 6-7AM' (FG16: '28RC\_6-7AM', Plan 1: '5 stages')

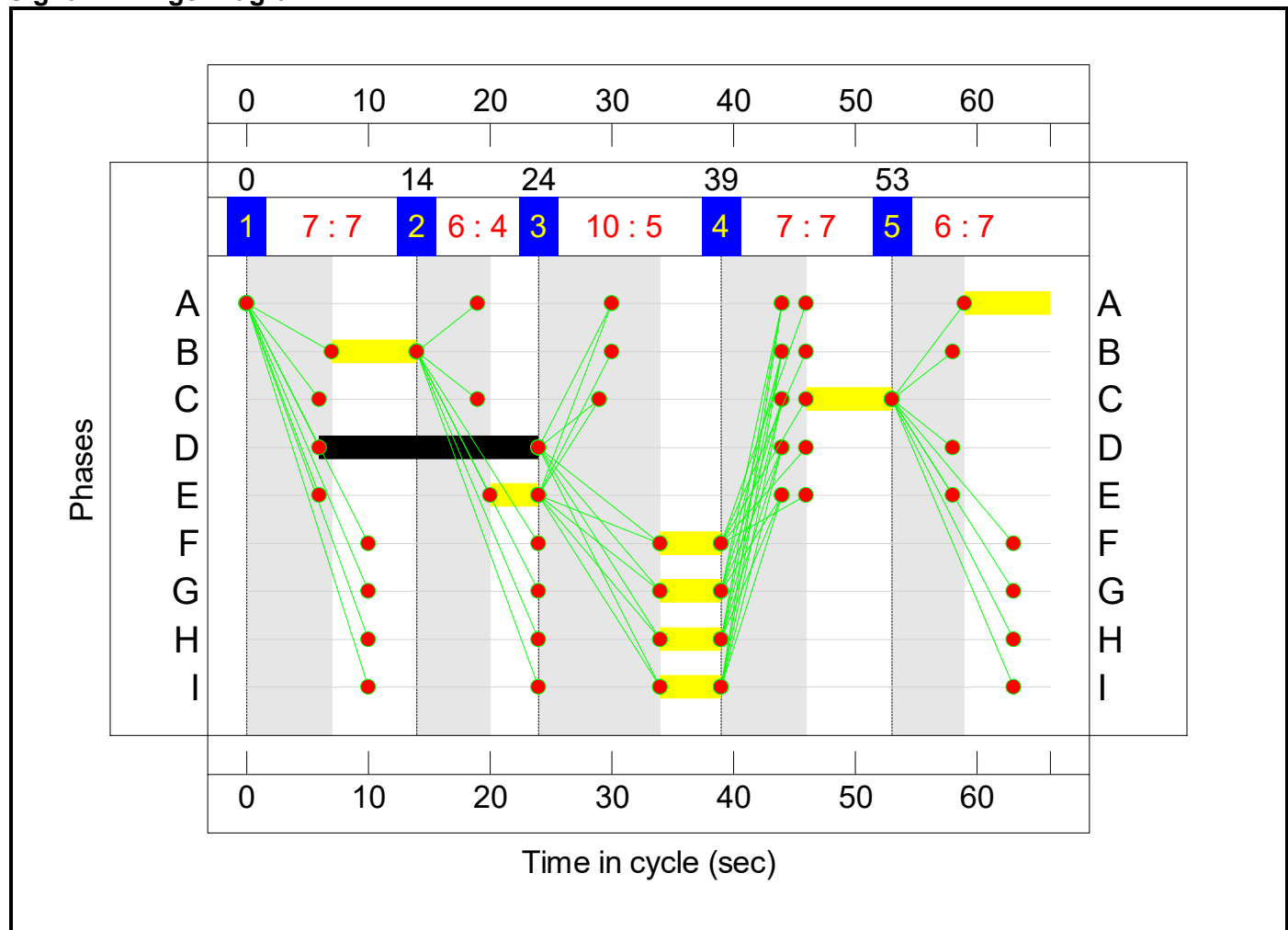
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

Signal Timings Diagram

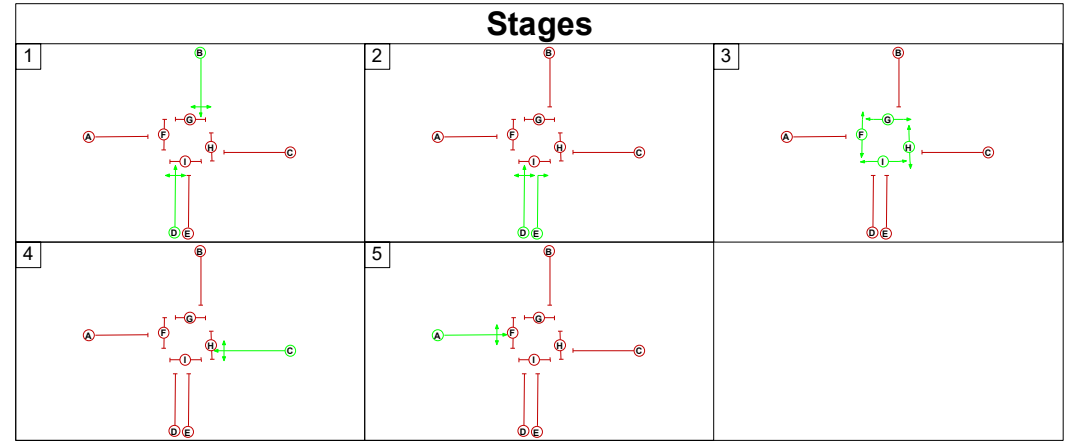
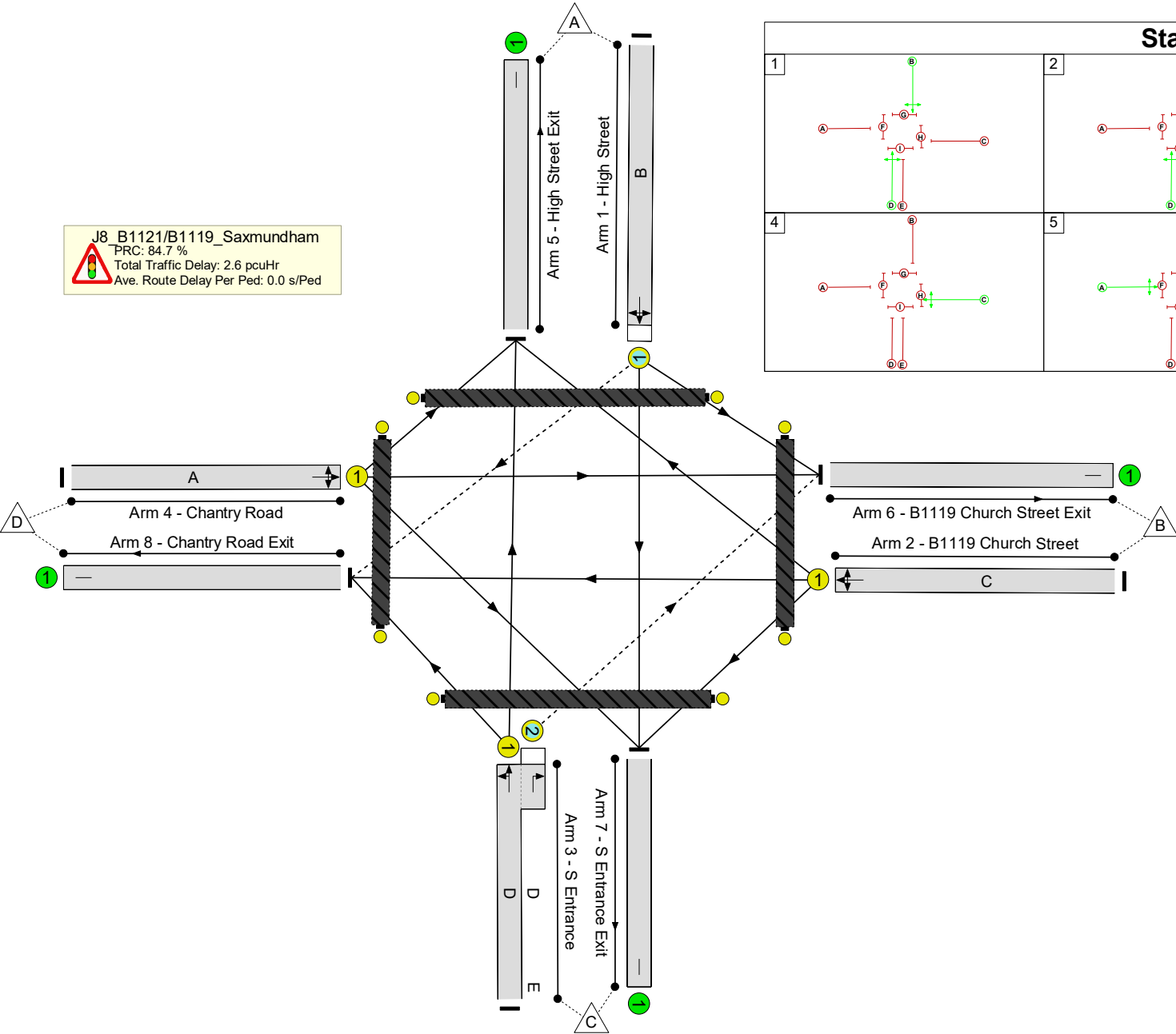




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 84.7 %  
 Total Traffic Delay: 2.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	48.7%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	48.7%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	96	1625	197	48.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	61	1800	218	28.0%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	62	1852:1875	381+294	9.2 : 9.2%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	43	1815	220	19.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	126	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

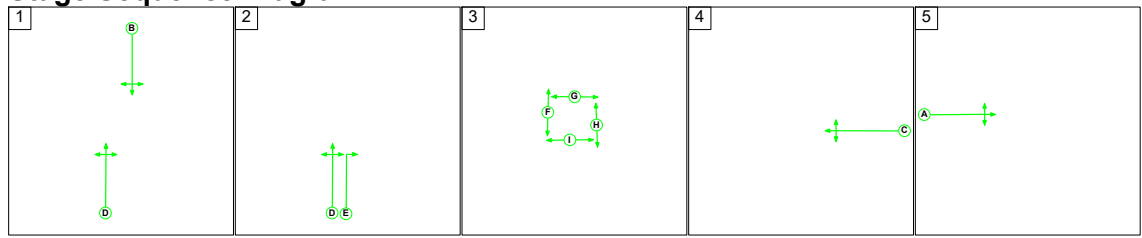
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	25	3	0	1.8	0.8	0.0	2.6	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	25	3	0	1.8	0.8	0.0	2.6	-	-	-	-
1/1	96	96	2	0	0	0.7	0.5	0.0	1.2	44.8	1.6	0.5	2.1
2/1	61	61	-	-	-	0.4	0.2	-	0.6	37.8	1.0	0.2	1.2
3/1+3/2	62	62	23	3	0	0.3	0.1	0.0	0.4	20.7	0.5	0.1	0.5
4/1	43	43	-	-	-	0.3	0.1	-	0.4	36.3	0.7	0.1	0.8
5/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	126	126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	84.7	Total Delay for Signalled Lanes (pcuHr):			2.63	Cycle Time (s): 66				
			PRC Over All Lanes (%):	84.7	Total Delay Over All Lanes(pcuHr):			2.63					

Full Input Data And Results

Scenario 17: '2028 Reference Case 7-8AM' (FG17: '28RC\_7-8AM', Plan 1: '5 stages')

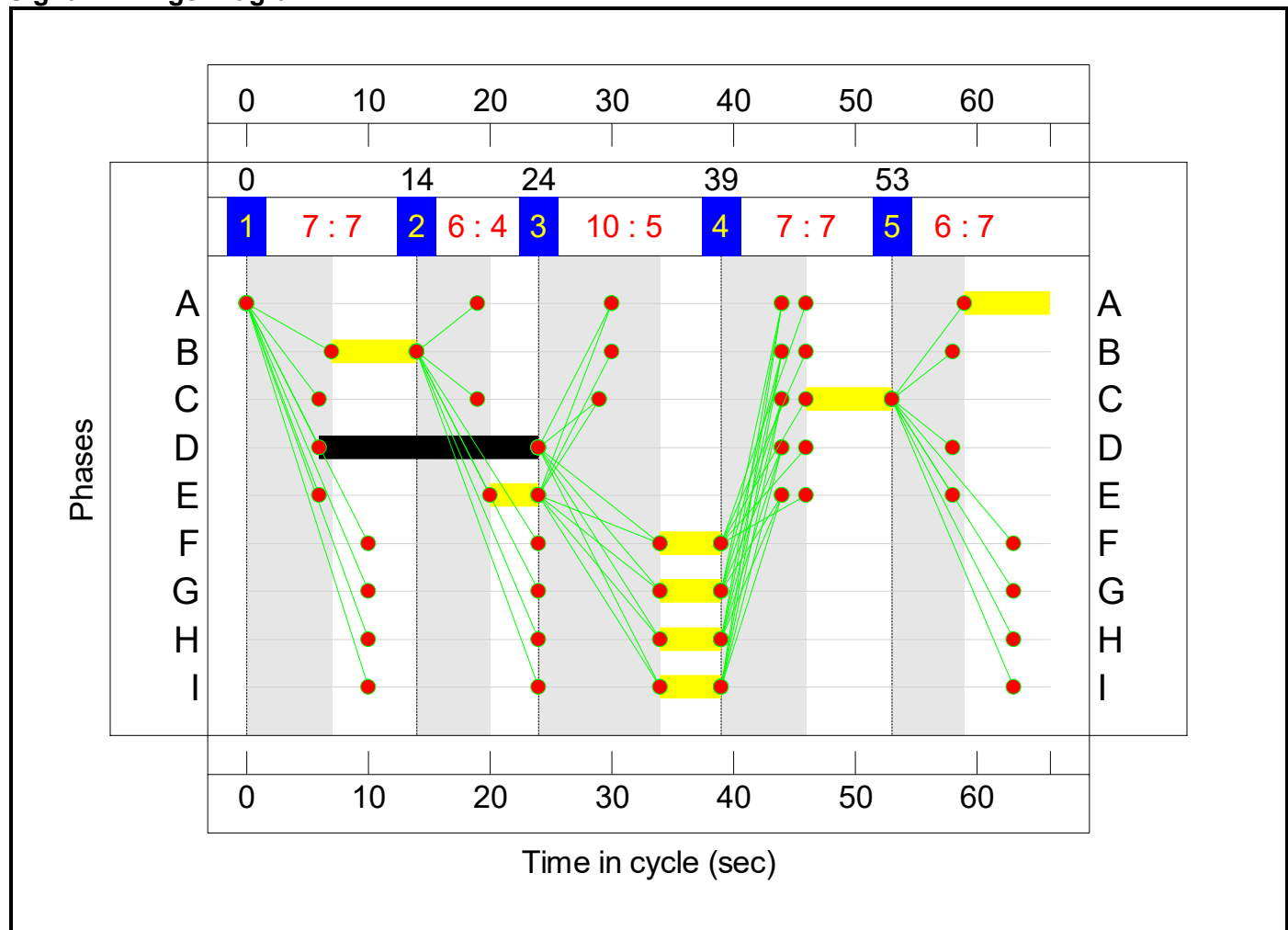
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

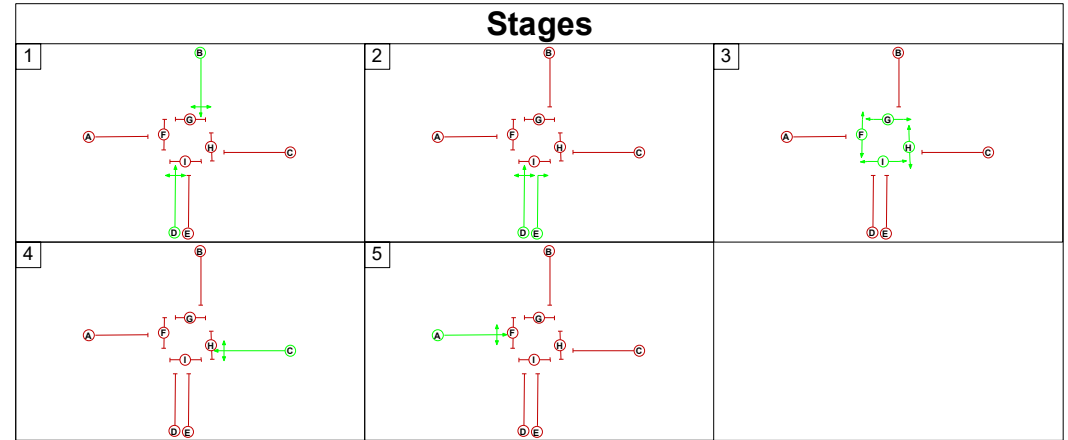
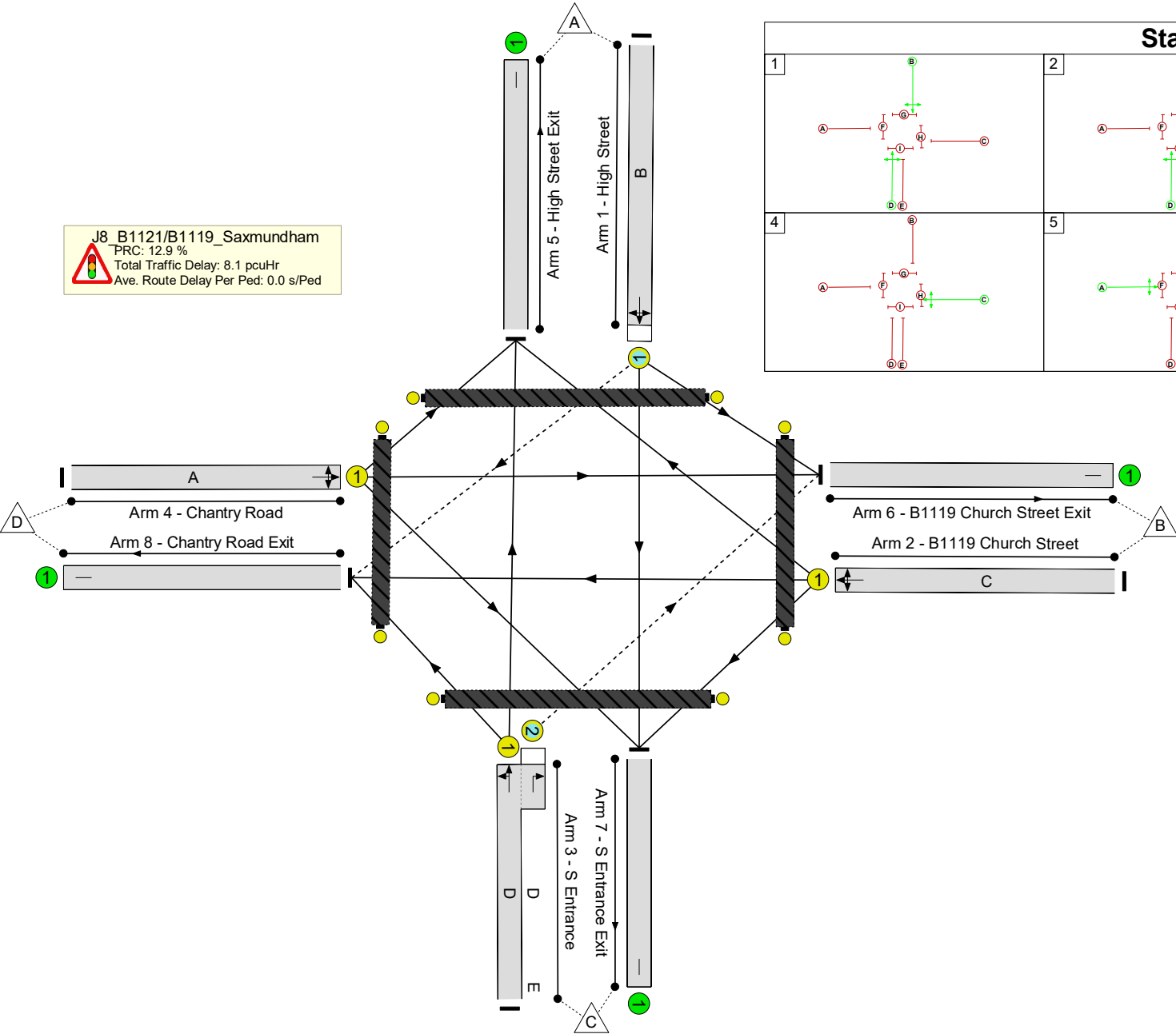
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 12.9 %  
 Total Traffic Delay: 8.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.8%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.8%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	134	1773	203	65.9%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	174	1800	218	79.8%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	144	1844:1875	233+309	26.6 : 26.6%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	142	1790	217	65.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	71	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

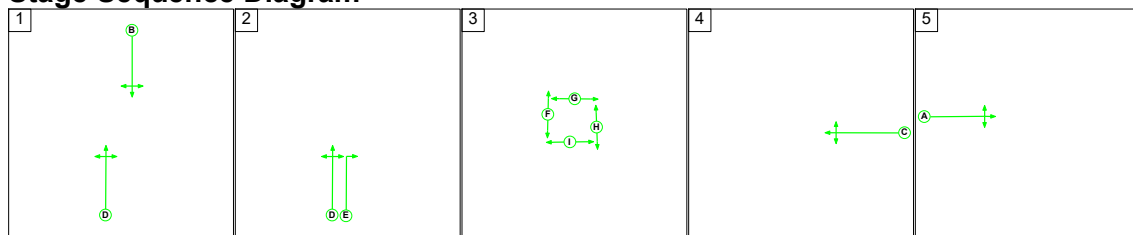




Full Input Data And Results

Scenario 18: '2028 Reference Case 8-9AM' (FG18: '28RC\_8-9AM', Plan 1: '5 stages')

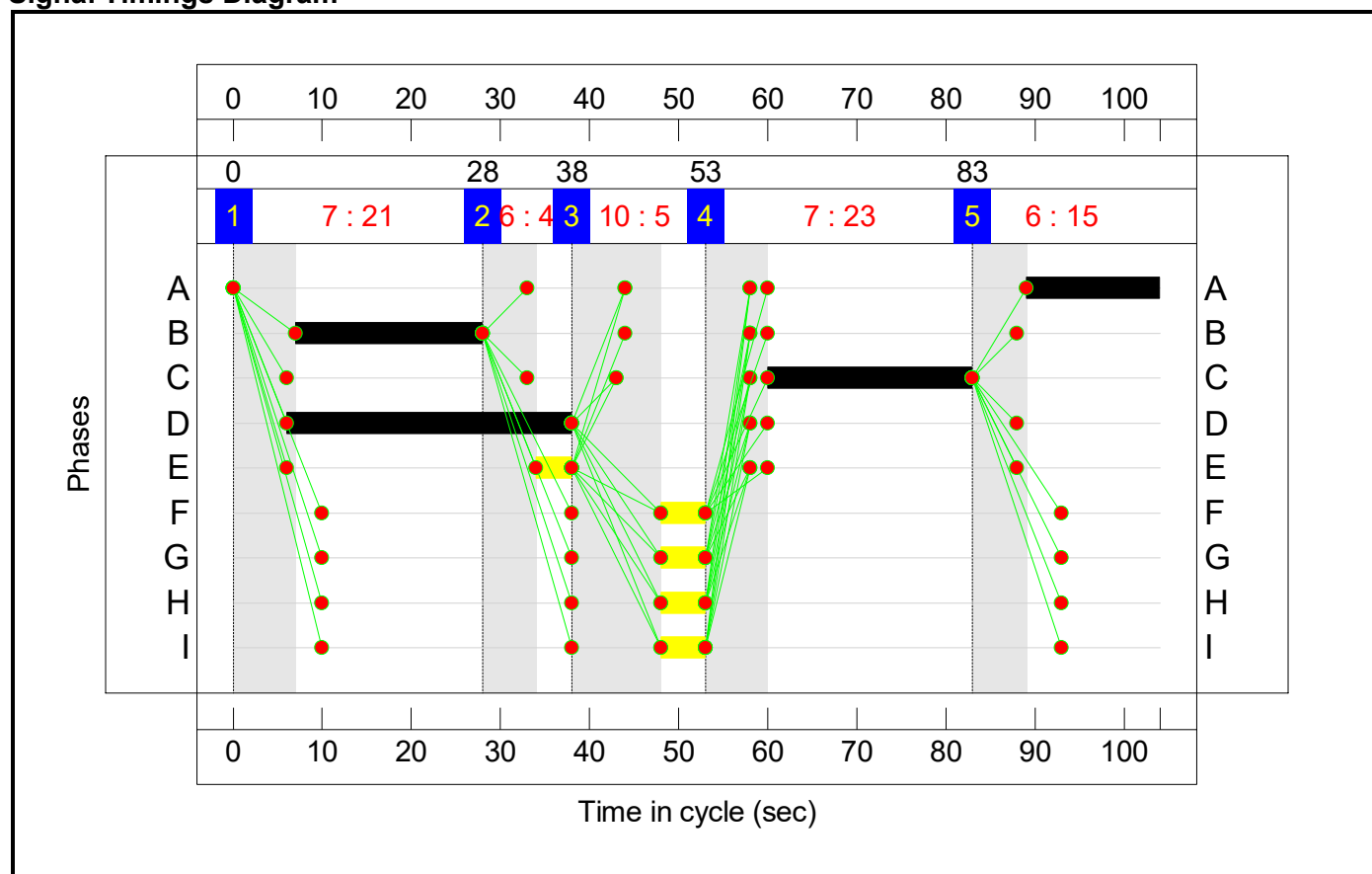
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	21	4	5	23	15
Change Point	0	28	38	53	83

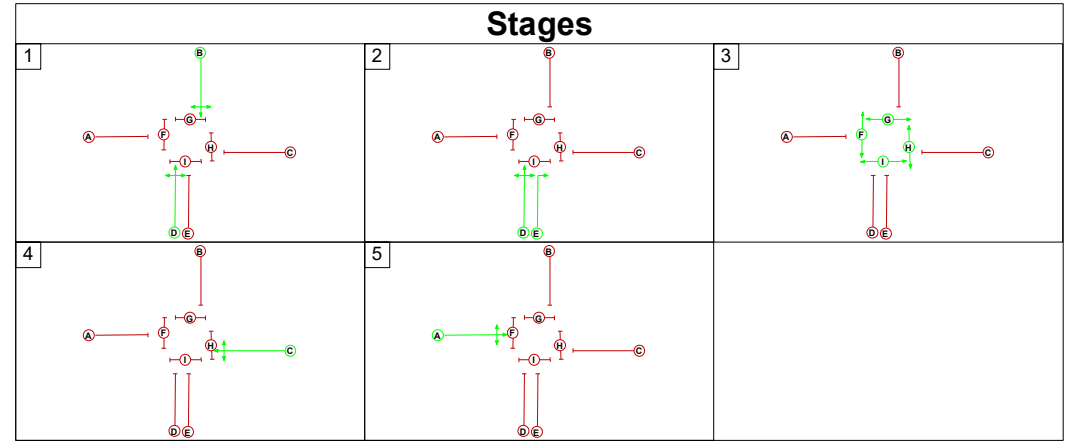
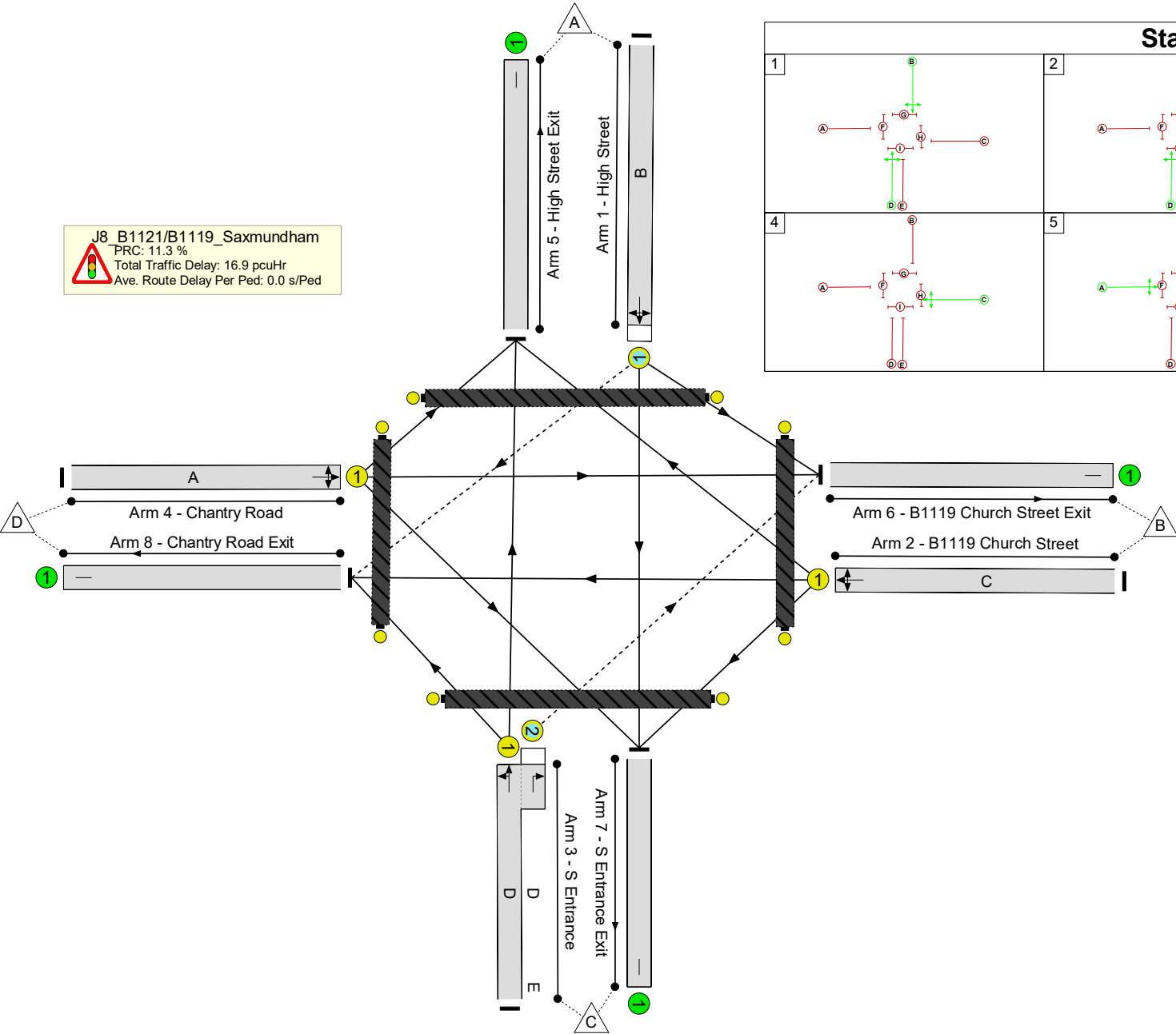
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 11.3 %  
 Total Traffic Delay: 16.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

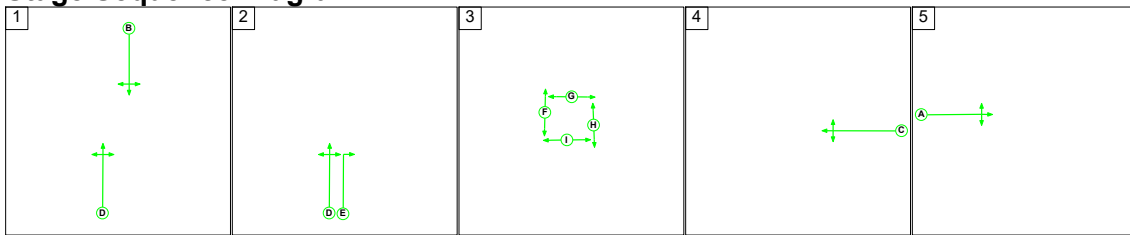
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	21	-	199	1708	248	80.2%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	23	-	336	1800	415	80.9%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	32	4	302	1833:1875	389+267	46.1 : 46.1%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	15	-	216	1747	269	80.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	129	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 19: '2028 Reference Case 3-4PM' (FG19: '28RC\_3-4PM', Plan 1: '5 stages')

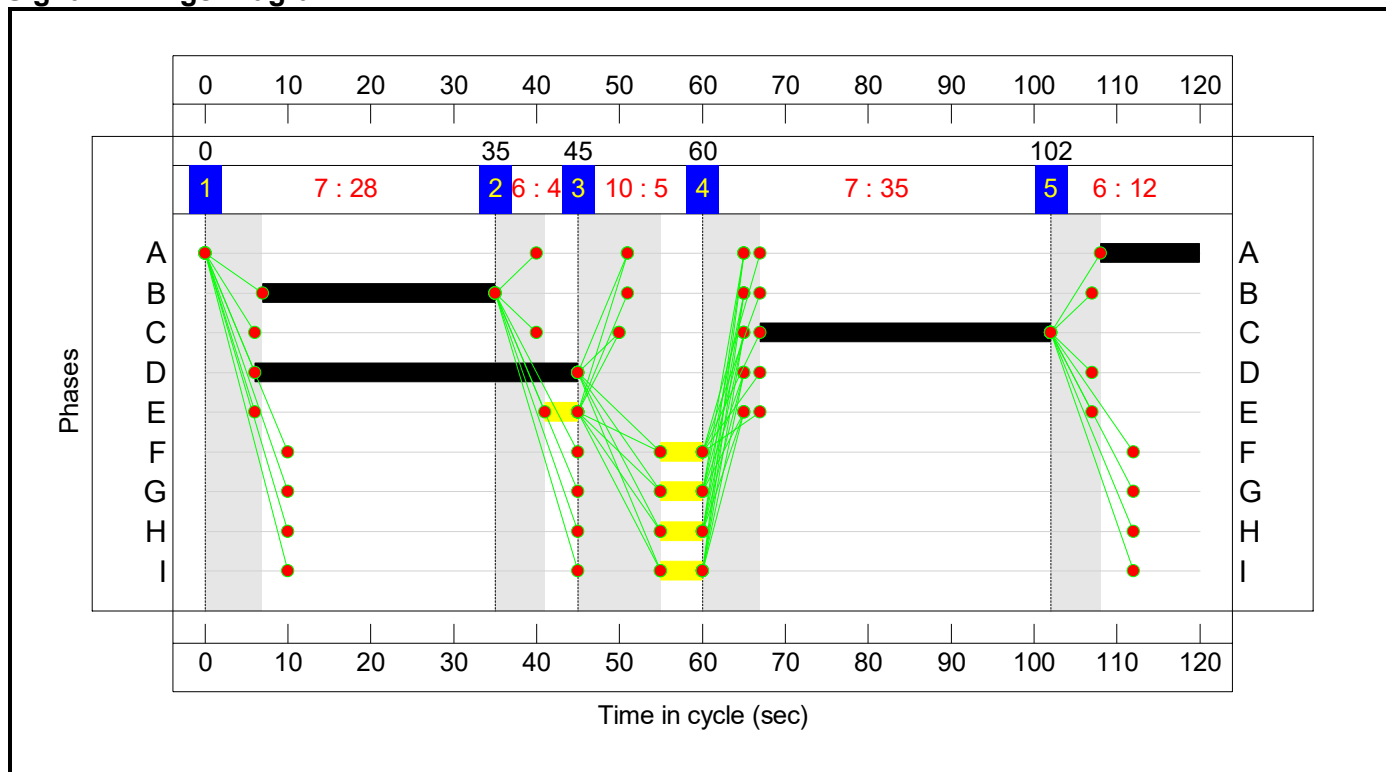
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	5	35	12
Change Point	0	35	45	60	102

Signal Timings Diagram

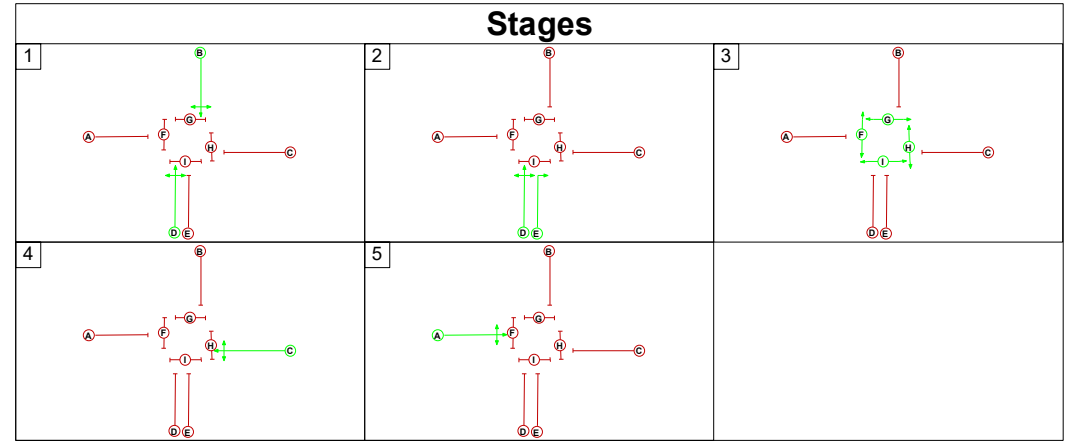
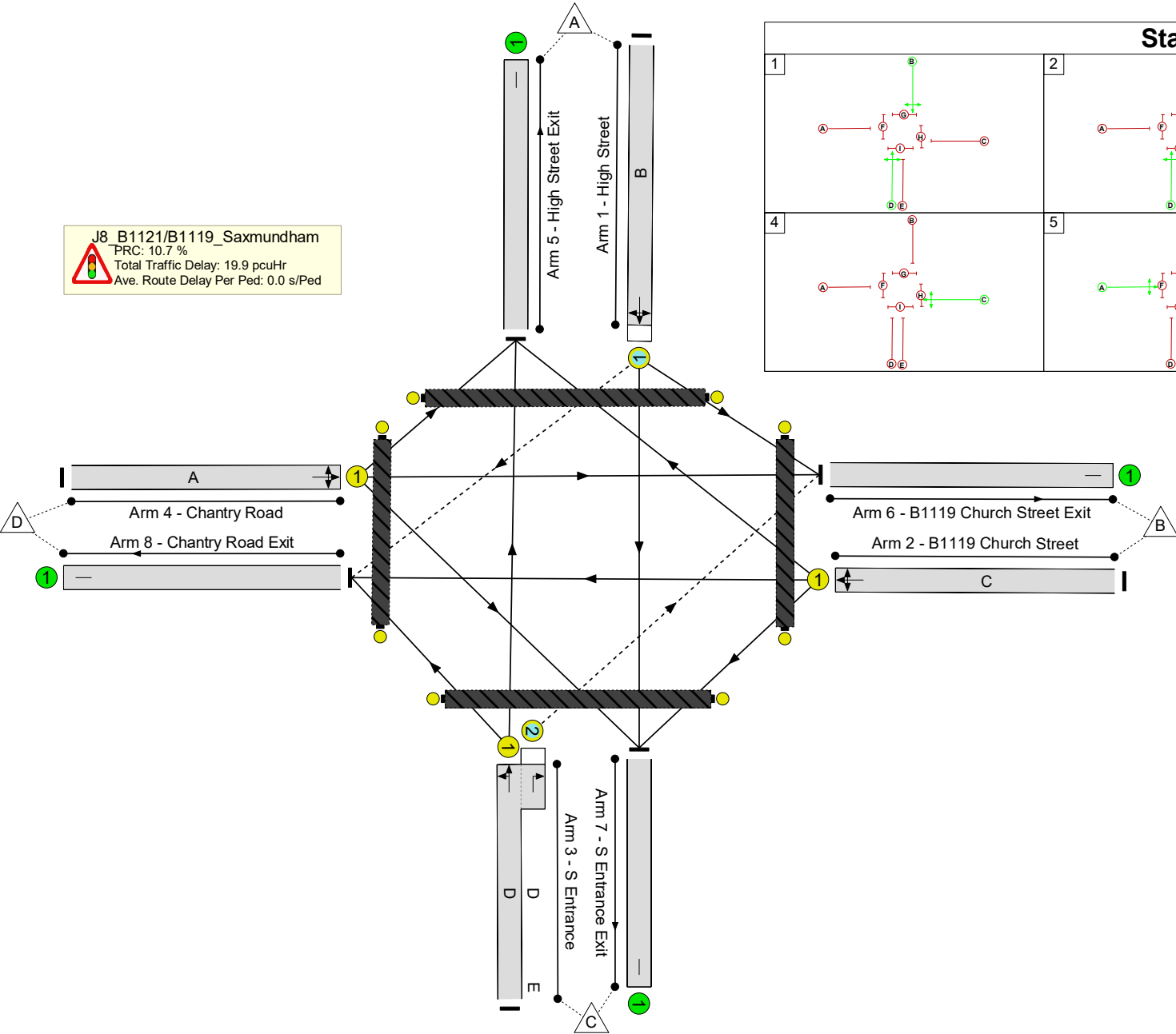


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 10.7 %  
 Total Traffic Delay: 19.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.3%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.3%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	28	-	248	1655	306	81.1%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	439	1800	540	81.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	39	4	320	1801:1875	267+251	61.8 : 61.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	157	1785	193	81.2%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

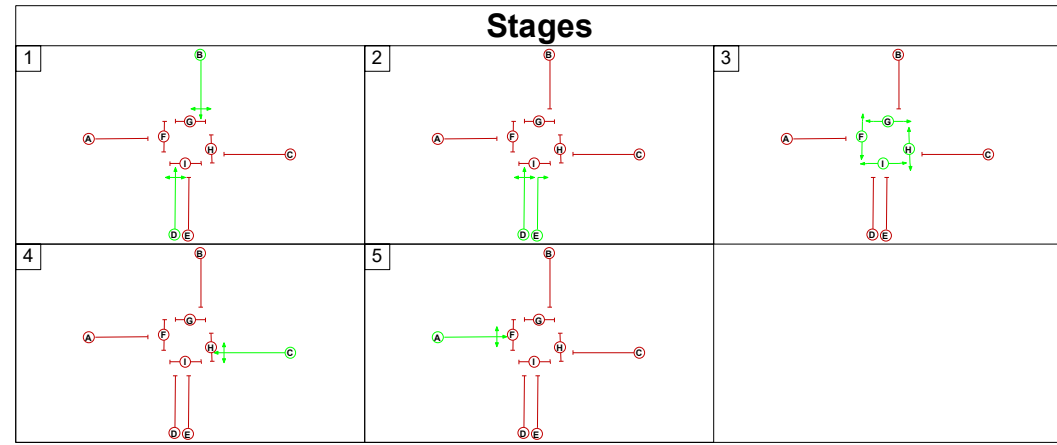
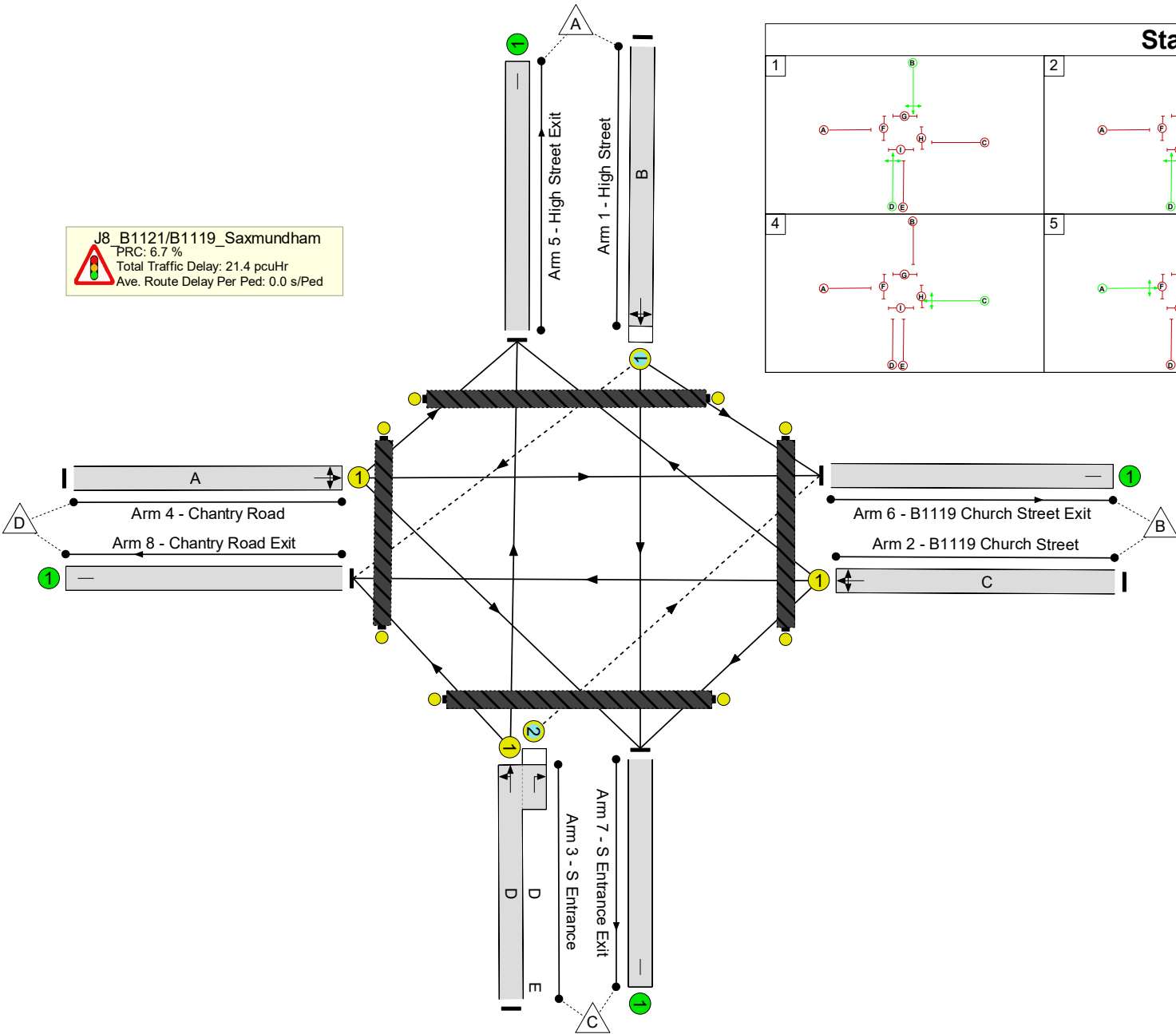




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 6.7 %  
 Total Traffic Delay: 21.4 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	27	-	250	1683	296	84.3%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	455	1800	540	84.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	38	4	311	1840:1875	280+241	59.7 : 59.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	13	-	176	1827	213	82.6%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	249	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

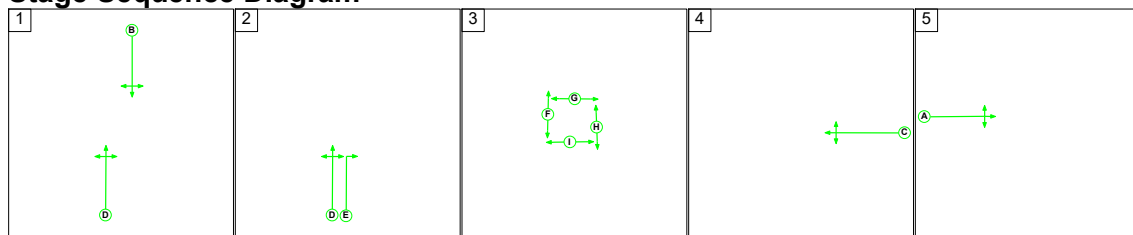




Full Input Data And Results

Scenario 21: '2028 Peak Construction 6-7AM' (FG21: '28PC\_6-7AM', Plan 1: '5 stages')

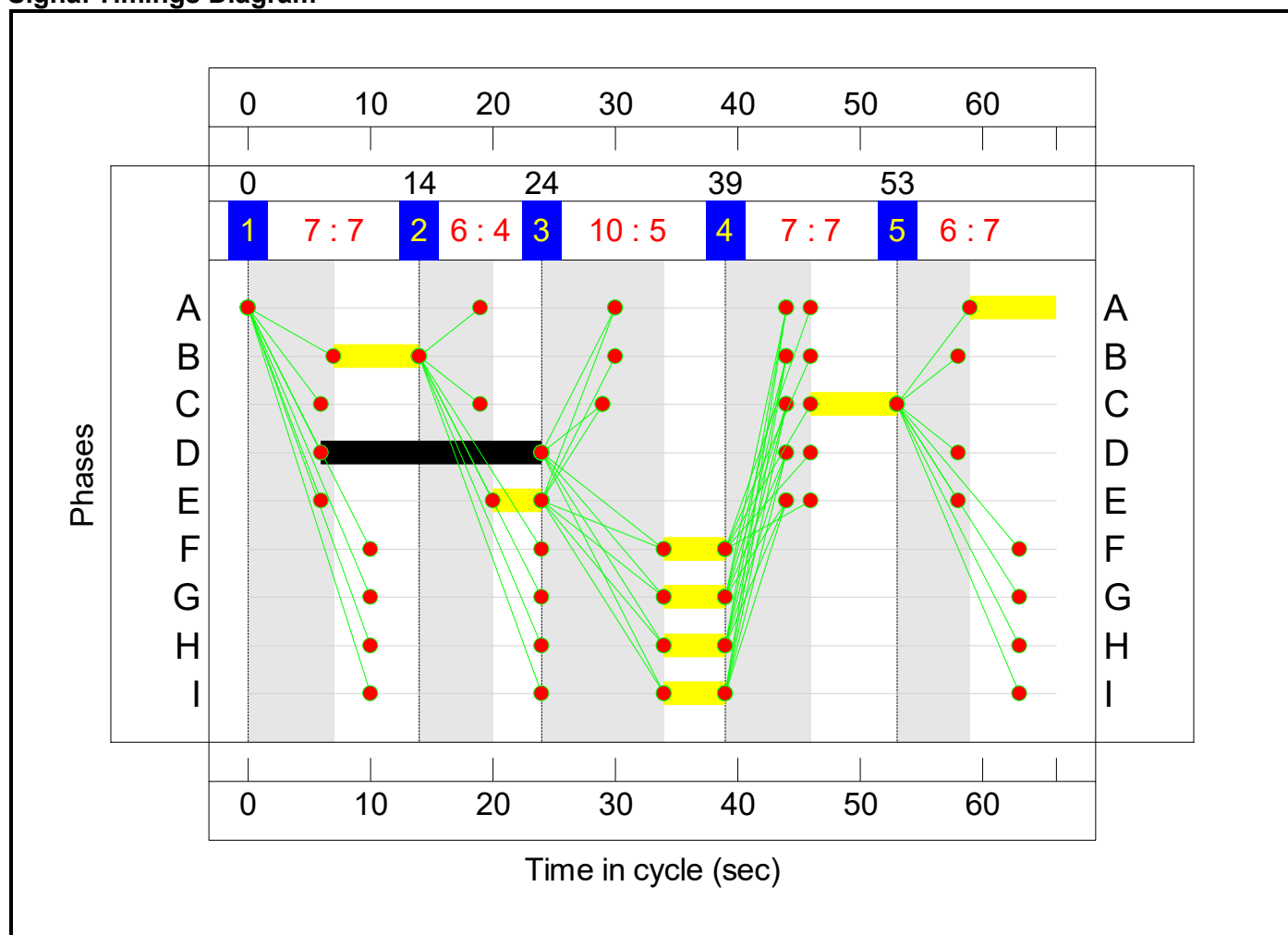
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

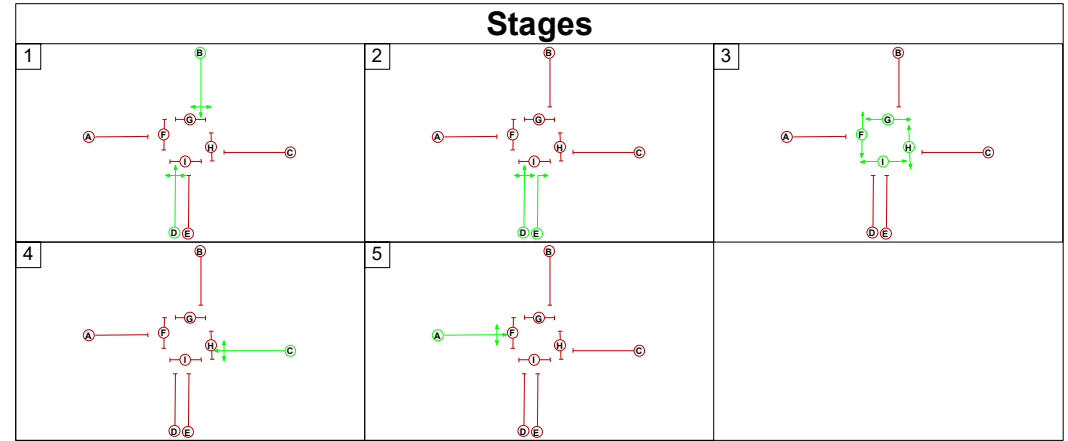
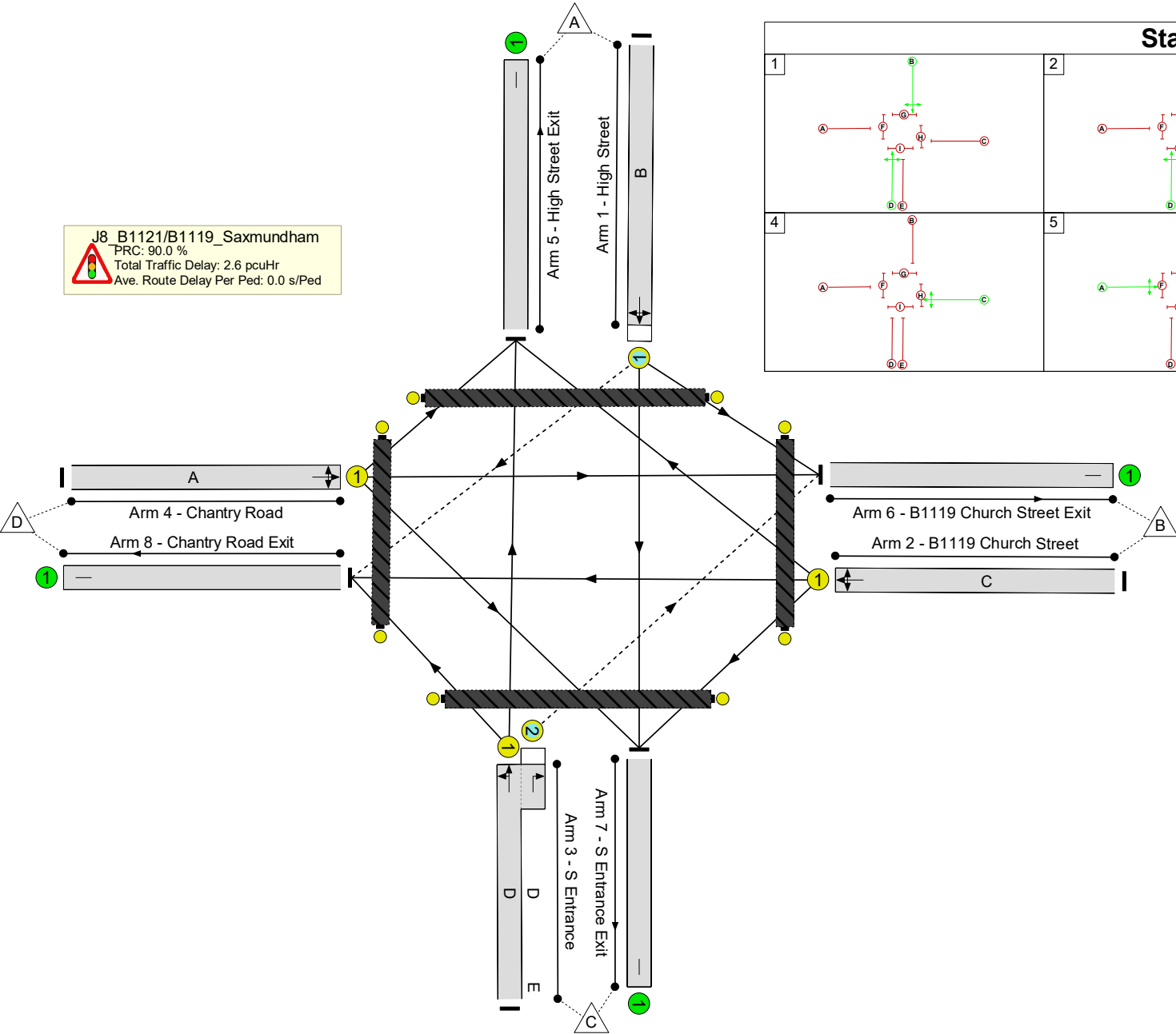
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 90.0 %  
 Total Traffic Delay: 2.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	47.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	47.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	93	1620	196	47.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	56	1800	218	25.7%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	80	1850:1875	249+337	13.6 : 13.6%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	43	1815	220	19.5%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	52	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	144	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	53	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

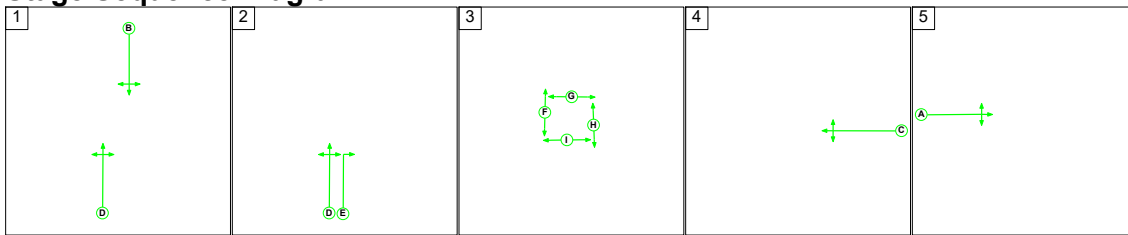
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	42	6	1	1.8	0.8	0.0	2.6	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	42	6	1	1.8	0.8	0.0	2.6	-	-	-	-
1/1	93	93	2	0	0	0.7	0.4	0.0	1.1	44.4	1.6	0.4	2.0
2/1	56	56	-	-	-	0.4	0.2	-	0.6	37.4	0.9	0.2	1.1
3/1+3/2	80	80	40	6	1	0.4	0.1	0.0	0.5	21.7	0.6	0.1	0.7
4/1	43	43	-	-	-	0.3	0.1	-	0.4	36.3	0.7	0.1	0.8
5/1	52	52	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	53	53	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	90.0	Total Delay for Signalled Lanes (pcuHr):			2.64	Cycle Time (s): 66				
			PRC Over All Lanes (%):	90.0	Total Delay Over All Lanes(pcuHr):			2.64					

Full Input Data And Results

Scenario 22: '2028 Peak Construction 7-8AM' (FG22: '28PC\_7-8AM', Plan 1: '5 stages')

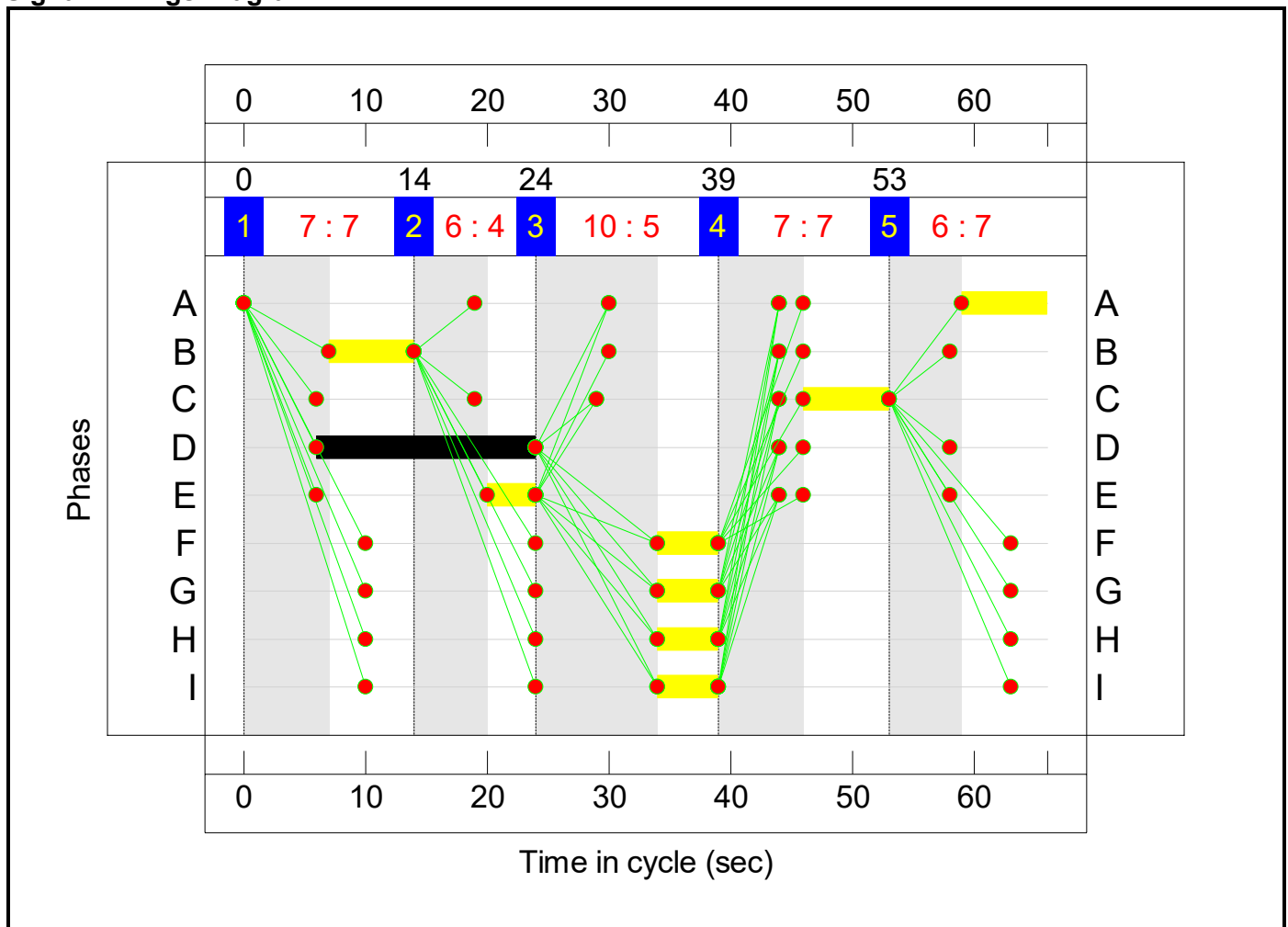
Stage Sequence Diagram



Stage Timings


Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

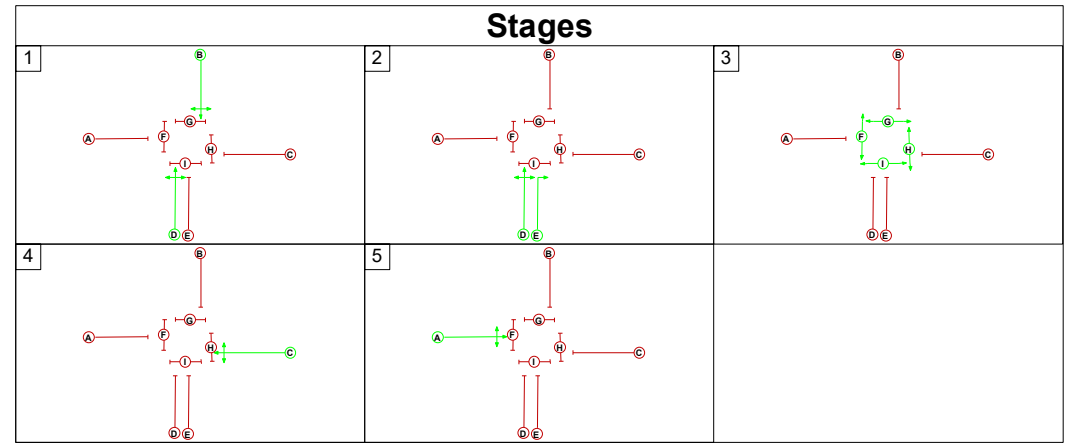
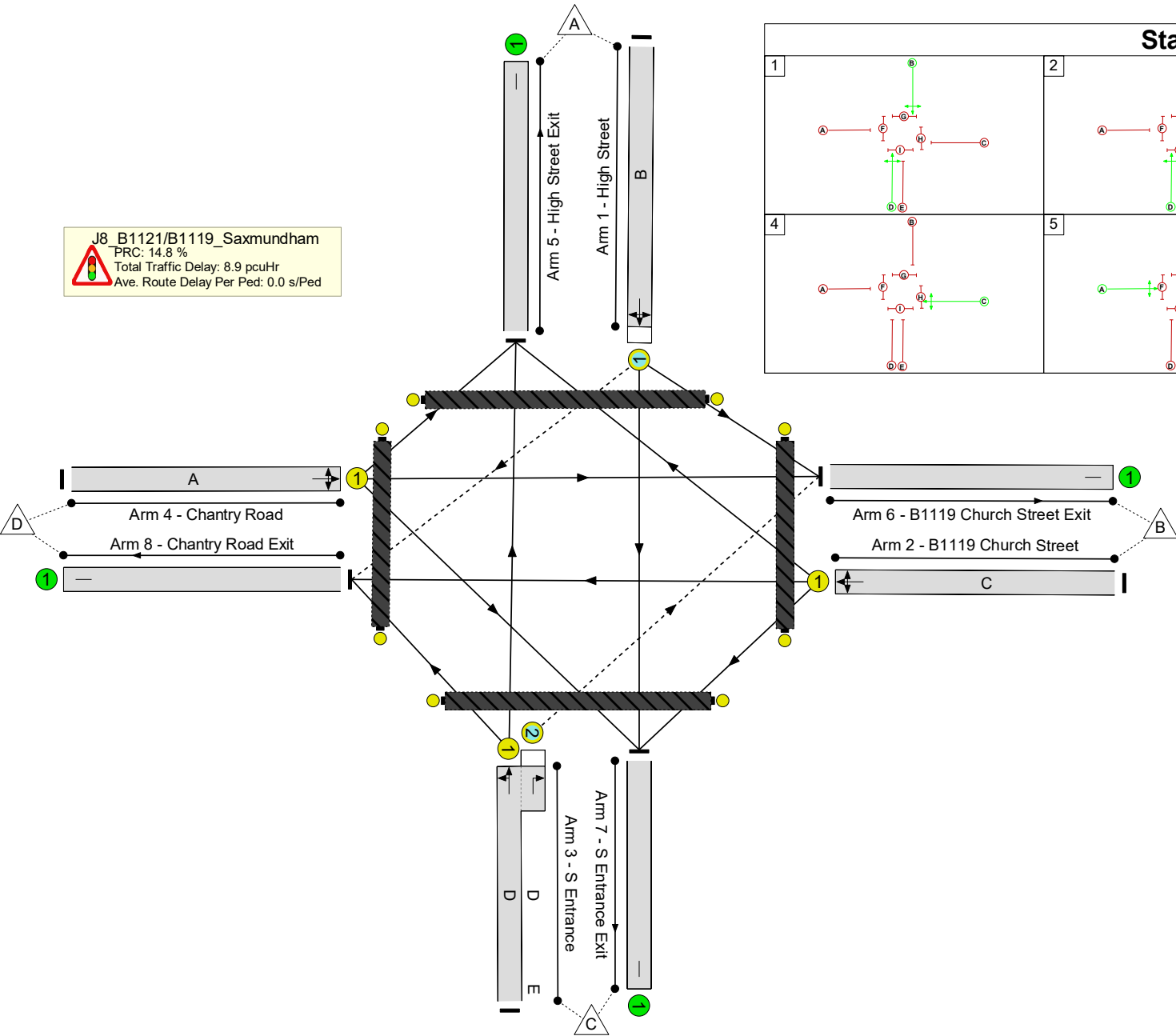
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

# Full Input Data And Results


**J8\_B1121/B1119\_Saxmundham**  
 PRC: 14.8 %  
 Total Traffic Delay: 8.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	151	1719	200	75.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	171	1800	218	78.4%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	164	1844:1875	179+295	34.6 : 34.6%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	142	1790	217	65.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	139	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	150	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	71	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

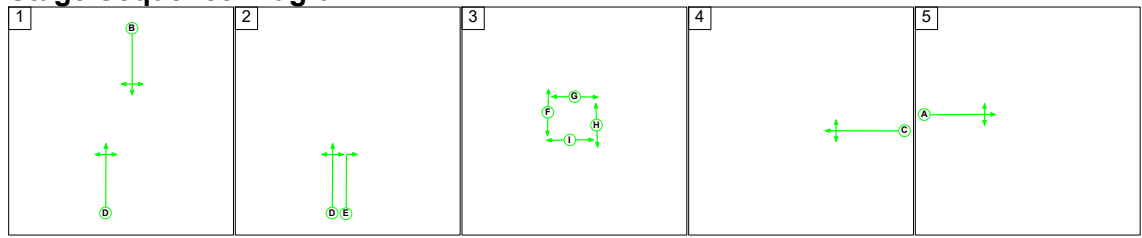
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	55	53	2	4.4	4.3	0.1	8.9	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	55	53	2	4.4	4.3	0.1	8.9	-	-	-	-
1/1	151	151	7	0	0	1.2	1.4	0.0	2.6	62.7	2.6	1.4	4.1
2/1	171	171	-	-	-	1.3	1.7	-	3.0	63.8	3.0	1.7	4.7
3/1+3/2	164	164	48	53	2	0.8	0.3	0.1	1.2	25.9	1.4	0.3	1.7
4/1	142	142	-	-	-	1.1	0.9	-	2.0	51.1	2.4	0.9	3.4
5/1	139	139	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	150	150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	71	71	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	14.8	Total Delay for Signalled Lanes (pcuHr):			8.85	Cycle Time (s): 66				
			PRC Over All Lanes (%):	14.8	Total Delay Over All Lanes(pcuHr):			8.85					

Full Input Data And Results

Scenario 23: '2028 Peak Construction 8-9AM' (FG23: '28PC\_8-9AM', Plan 1: '5 stages')

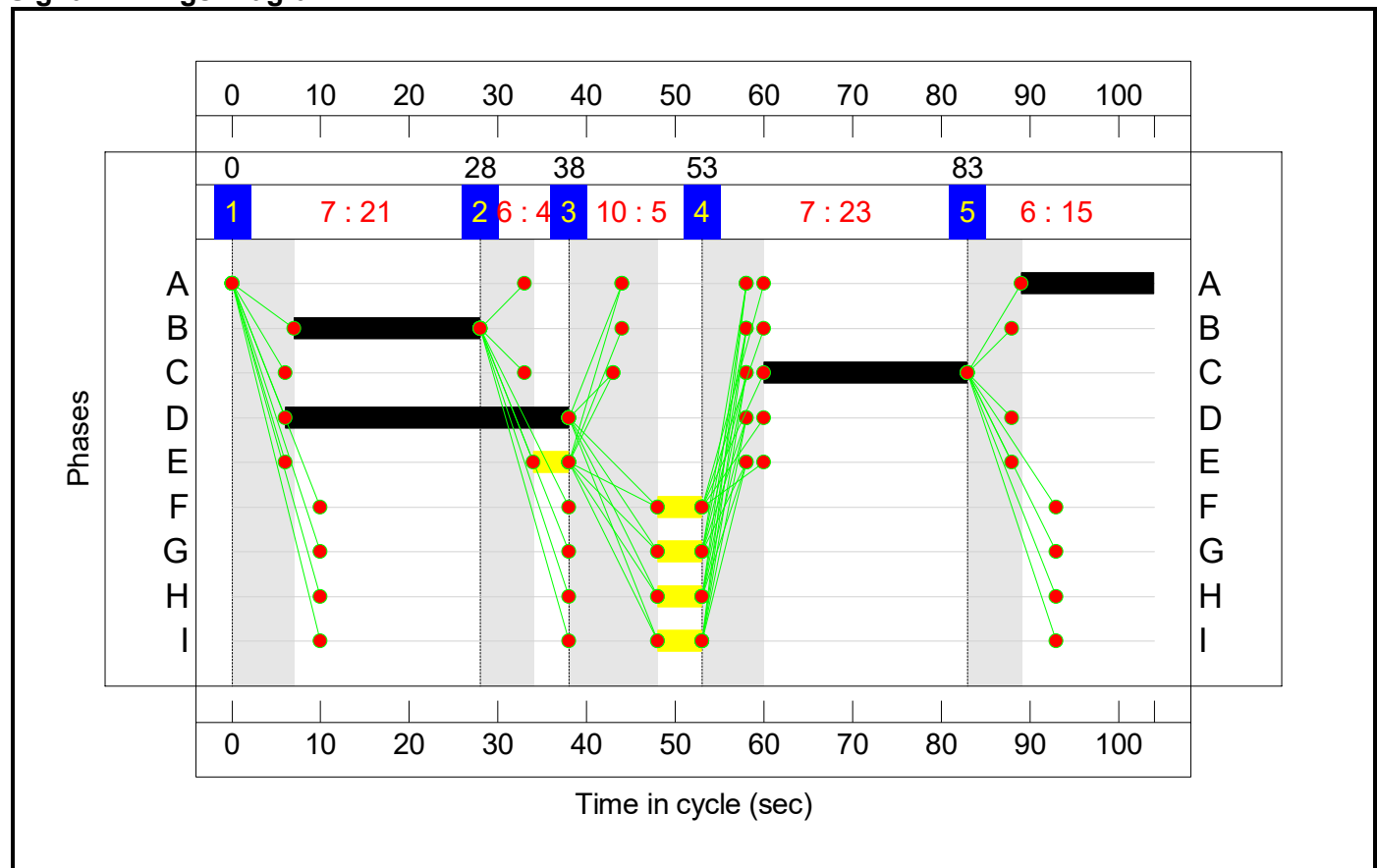
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	21	4	5	23	15
Change Point	0	28	38	53	83

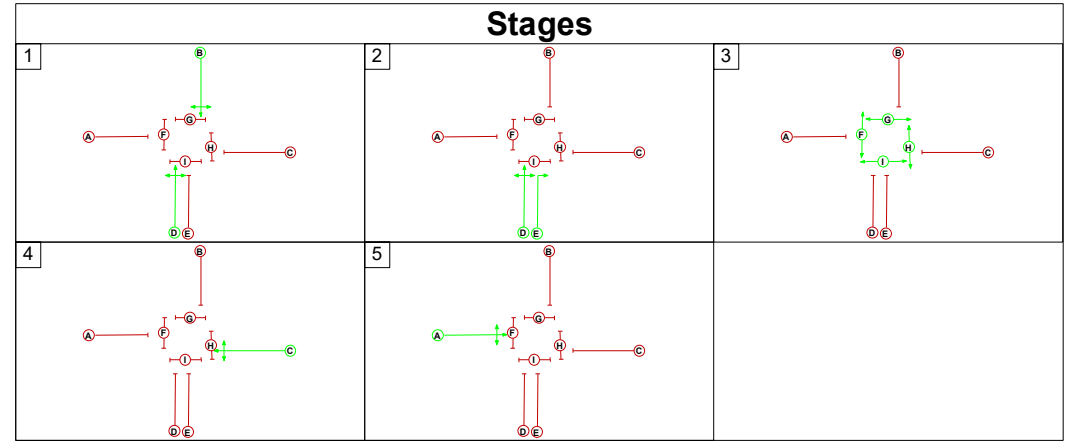
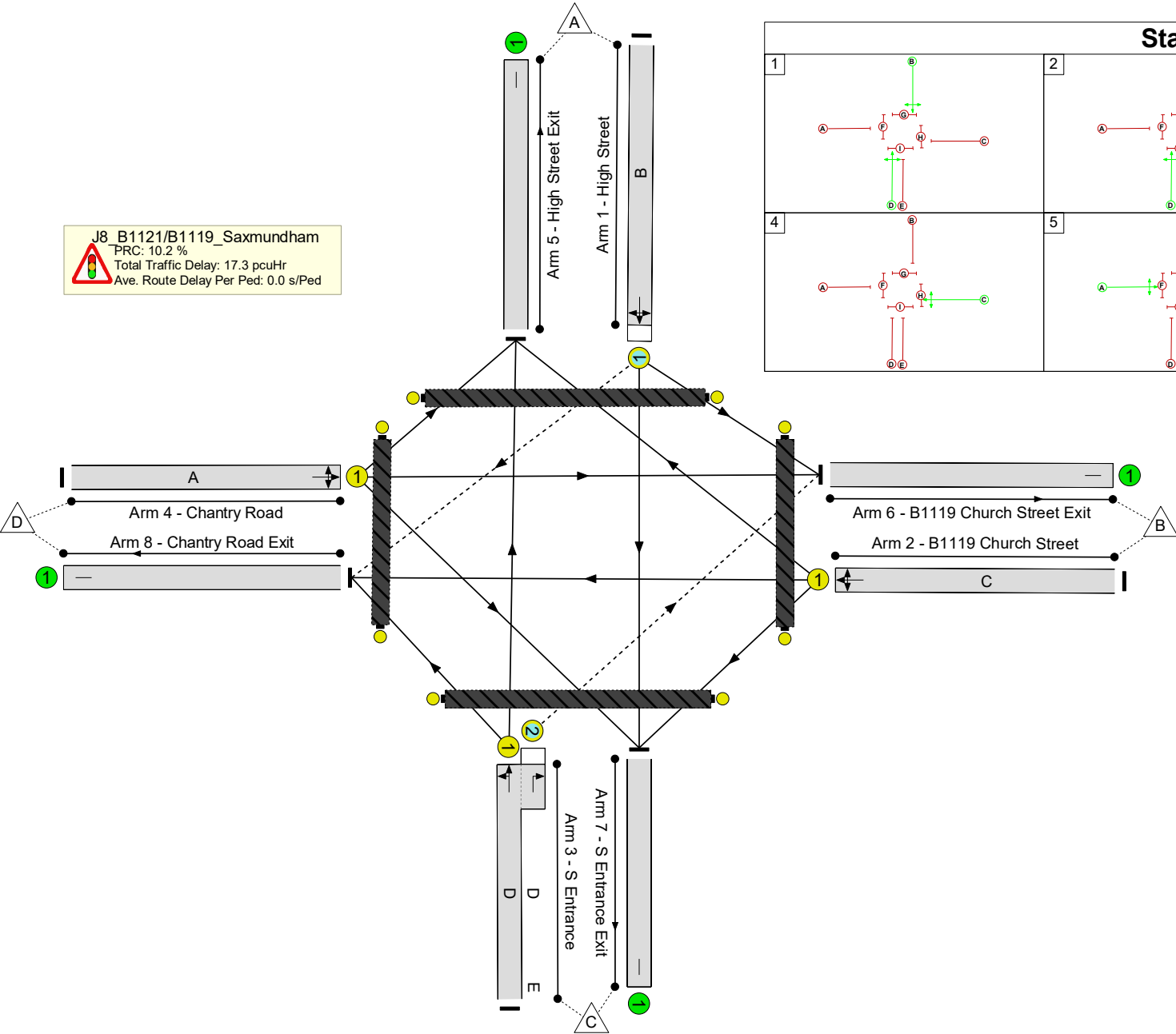
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 10.2 %  
 Total Traffic Delay: 17.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

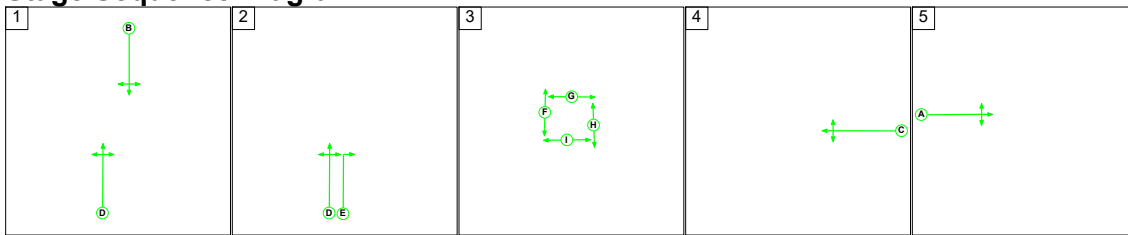
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	21	-	202	1702	247	81.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	23	-	333	1800	415	80.2%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	32	4	322	1833:1875	350+276	51.4 : 51.4%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	15	-	216	1747	269	80.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	129	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 24: '2028 Peak Construction 3-4PM' (FG24: '28PC\_3-4PM', Plan 1: '5 stages')

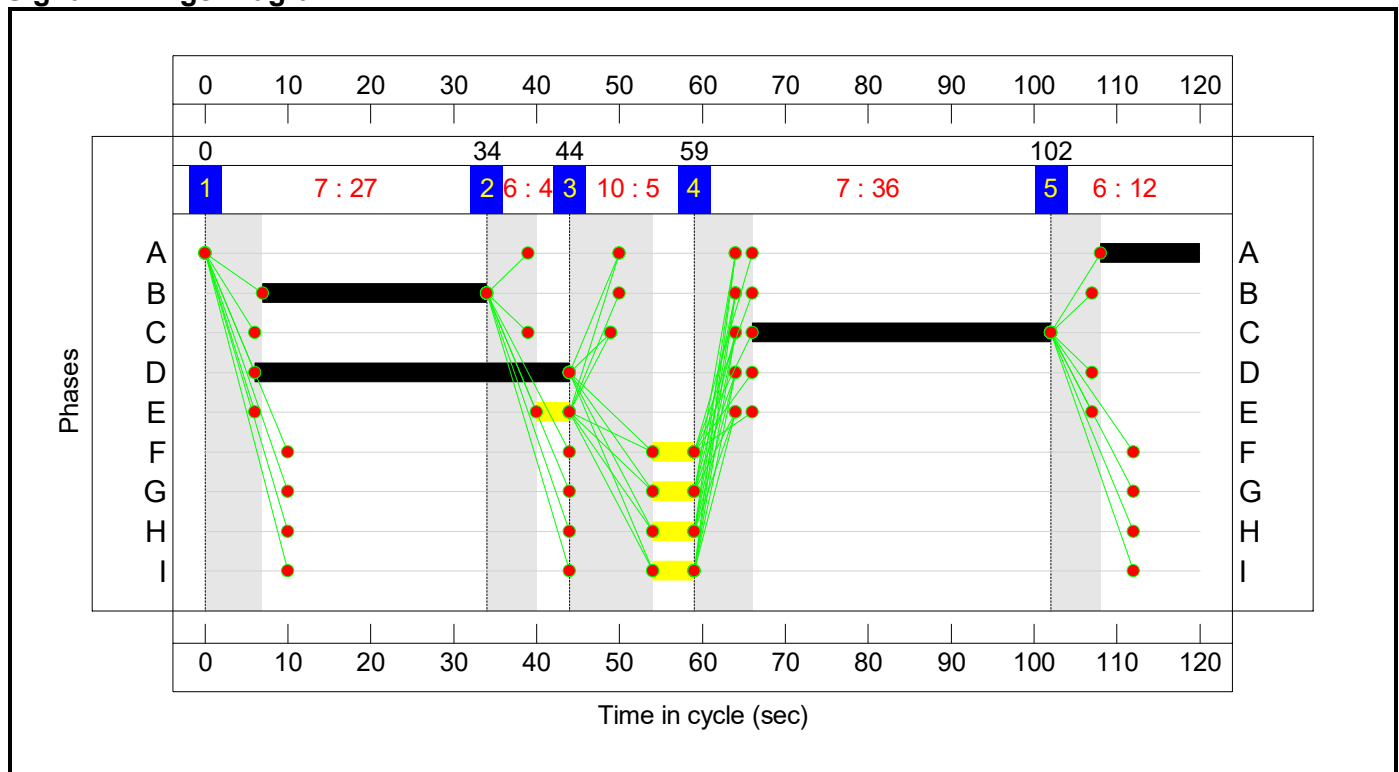
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	4	5	36	12
Change Point	0	34	44	59	102

Signal Timings Diagram

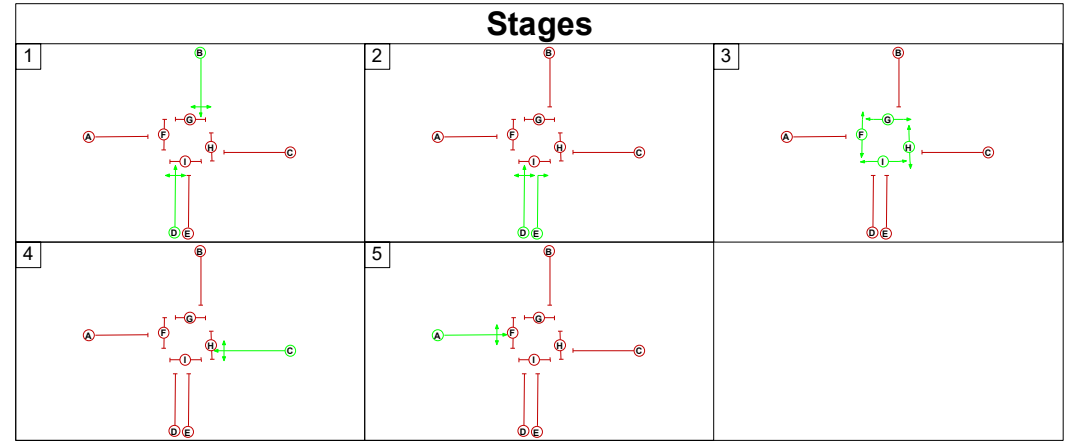
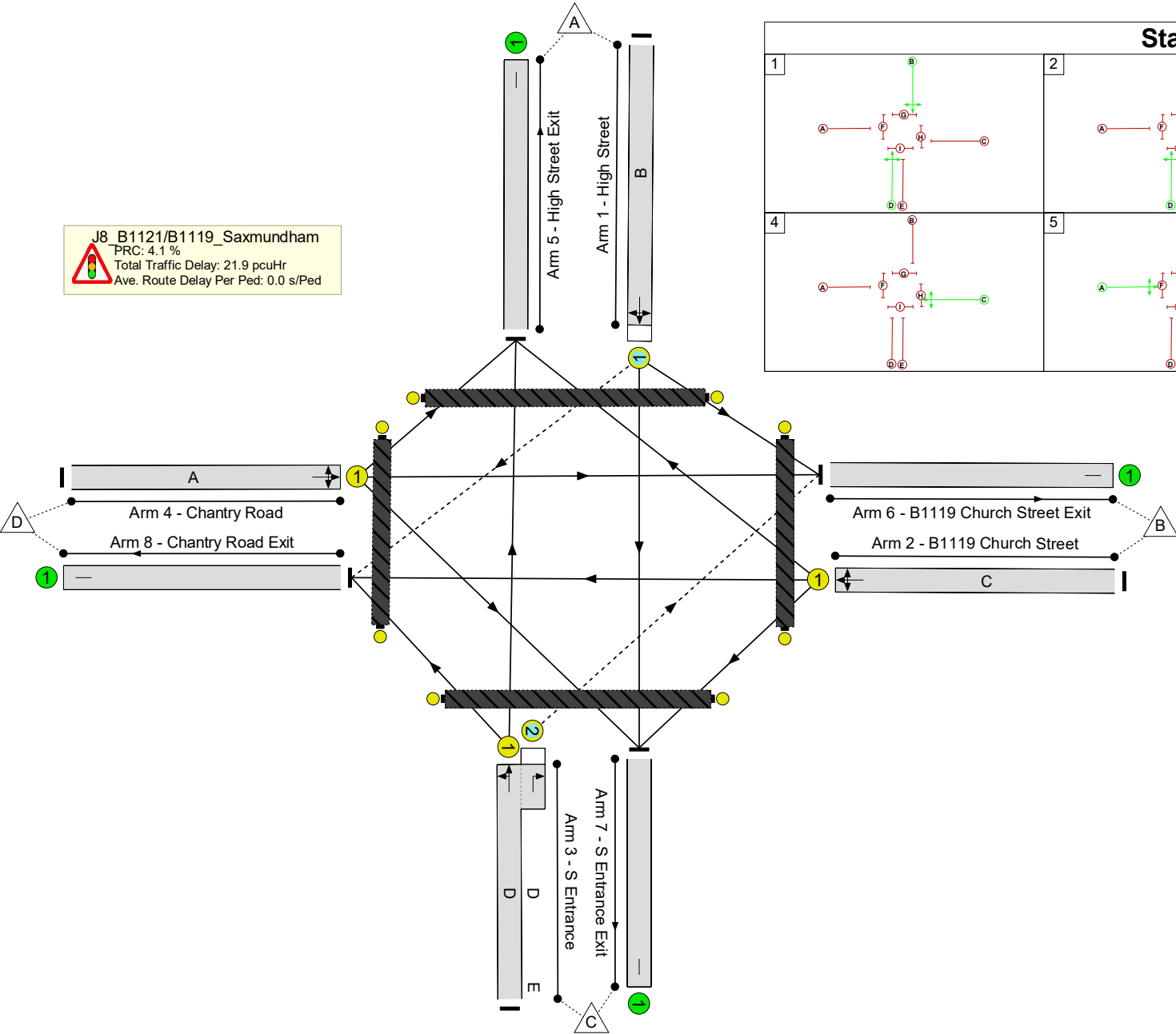




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 4.1 %  
 Total Traffic Delay: 21.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

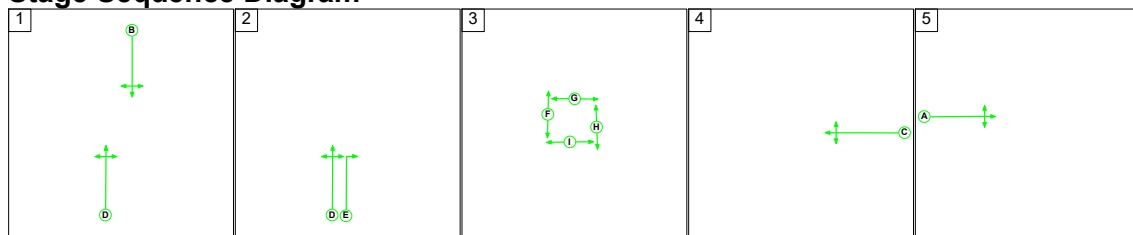
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	27	-	241	1658	306	78.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	36	-	480	1800	555	86.5%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	38	4	345	1800:1875	226+250	72.5 : 72.5%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	157	1785	193	81.2%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	425	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	280	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 25: '2028 Peak Construction 5-6PM' (FG25: '28PC\_5-6PM', Plan 1: '5 stages')

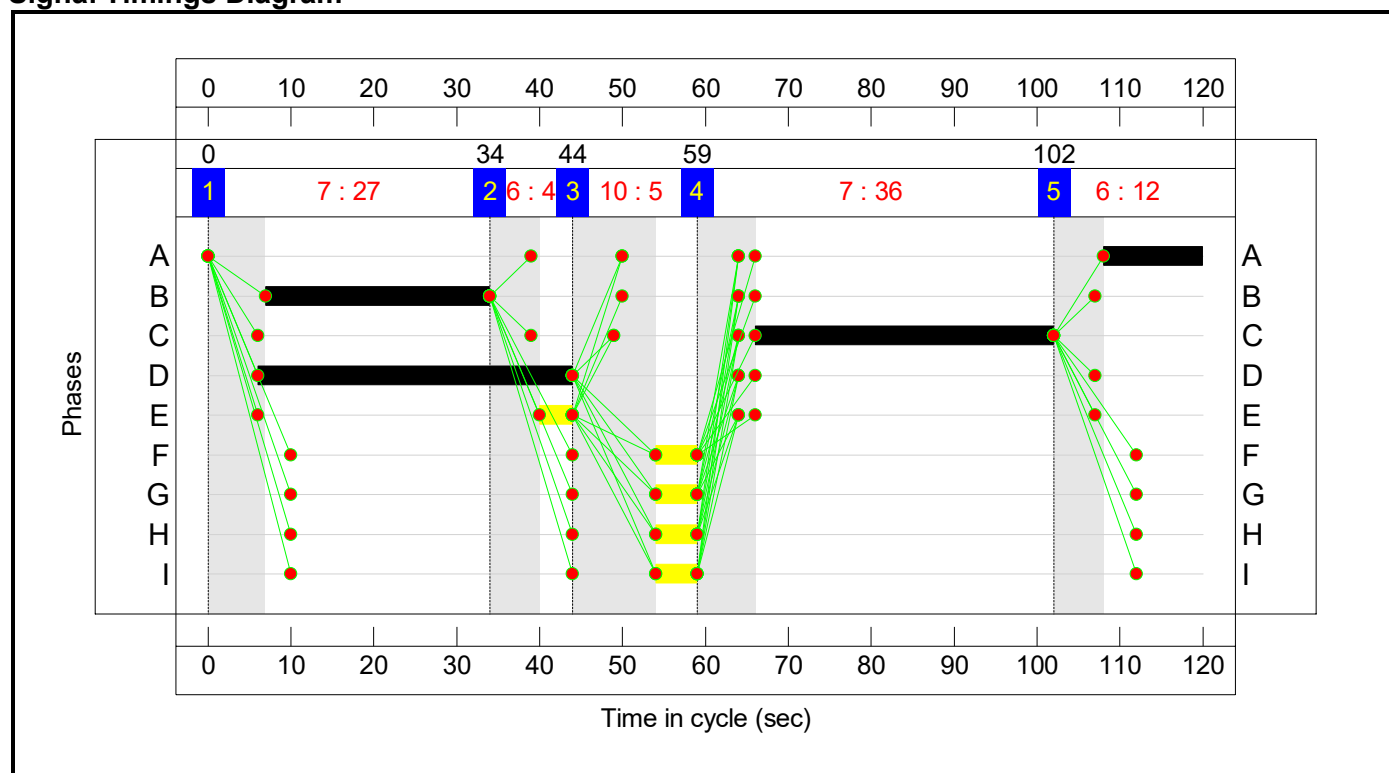
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	4	5	36	12
Change Point	0	34	44	59	102

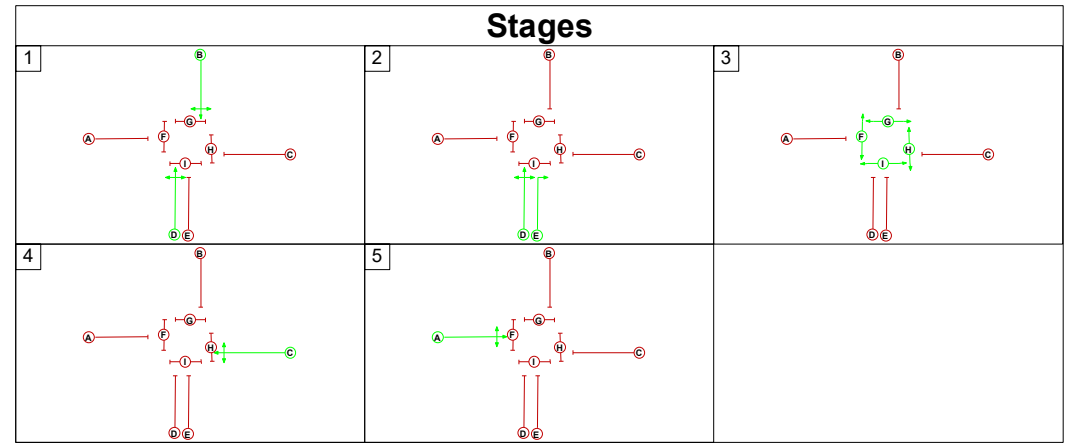
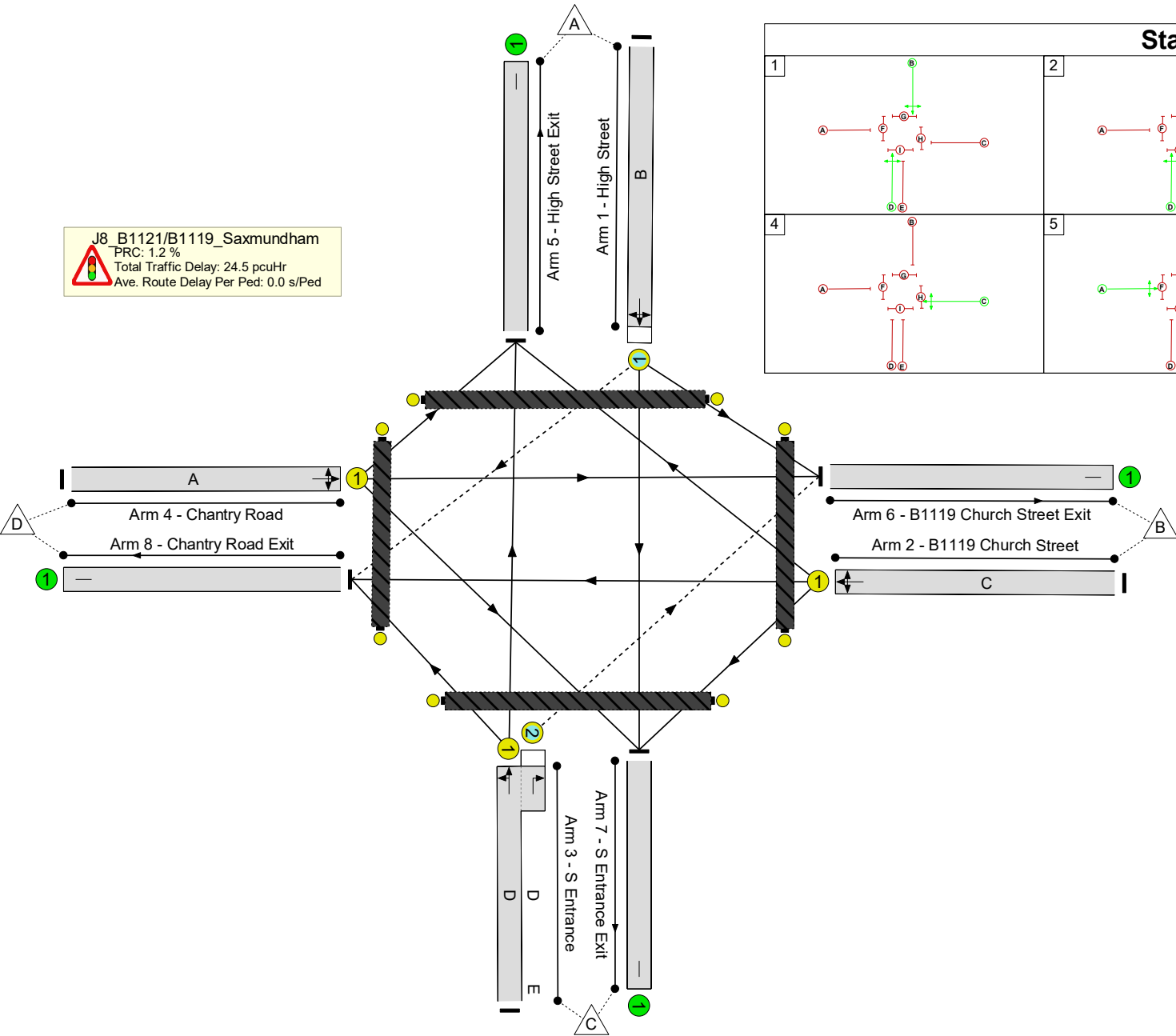
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 1.2 %  
 Total Traffic Delay: 24.5 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	27	-	250	1685	289	86.5%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	36	-	484	1800	555	87.2%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	38	4	358	1852:1875	307+235	66.1 : 66.1%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	176	1827	198	88.9%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

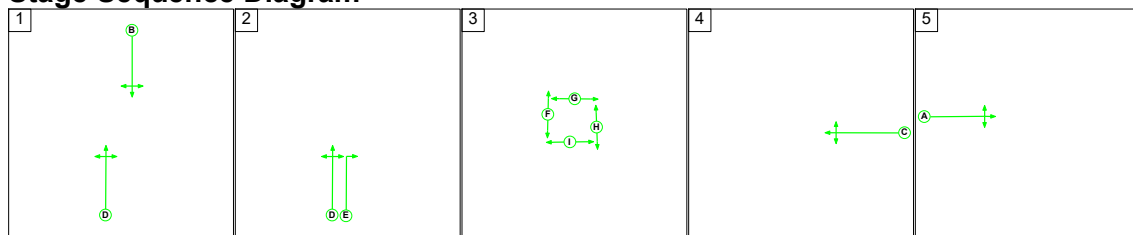




Full Input Data And Results

Scenario 26: '2034 Reference Case 6-7AM' (FG26: '34RC\_6-7AM', Plan 1: '5 stages')

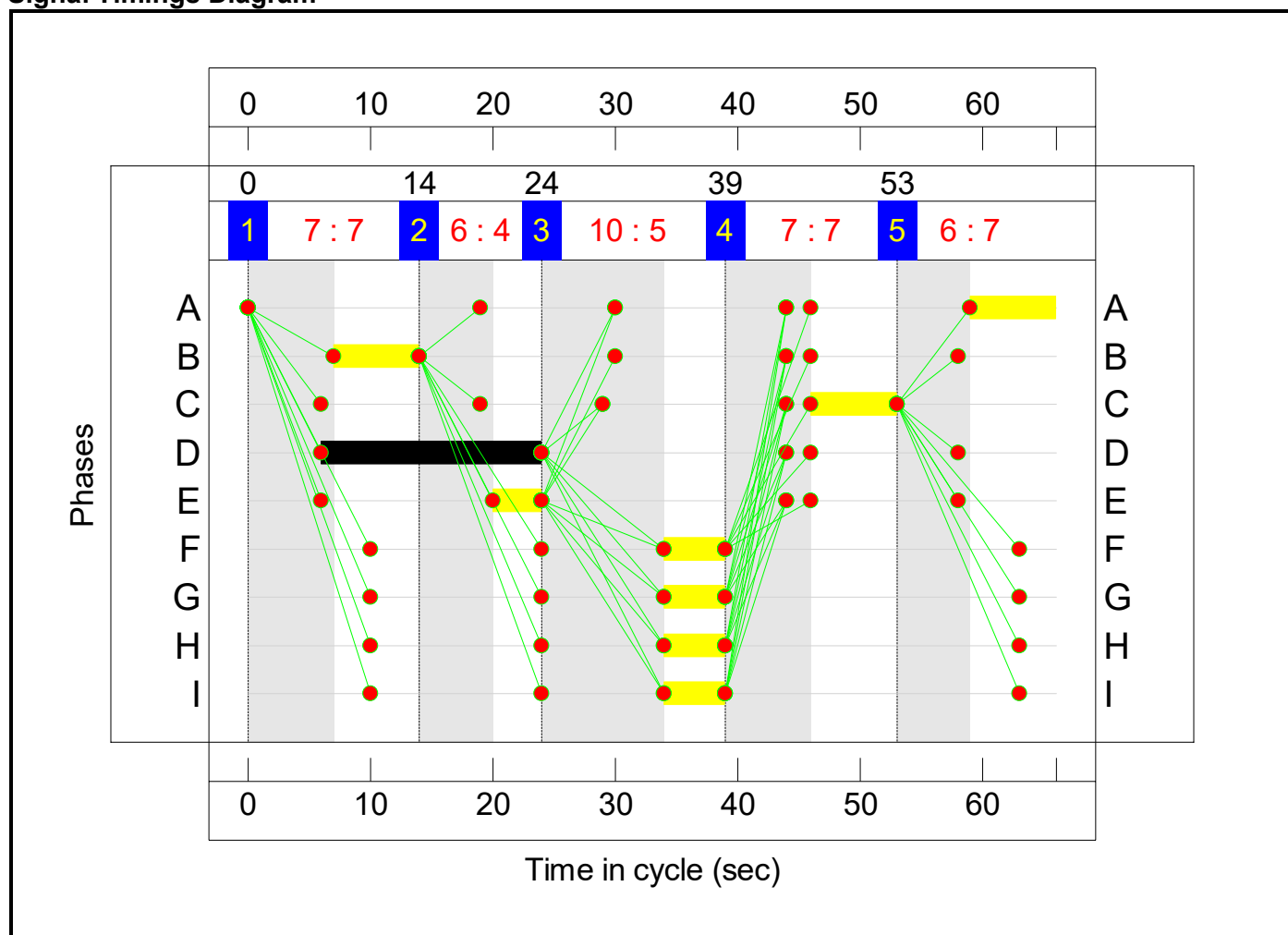
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

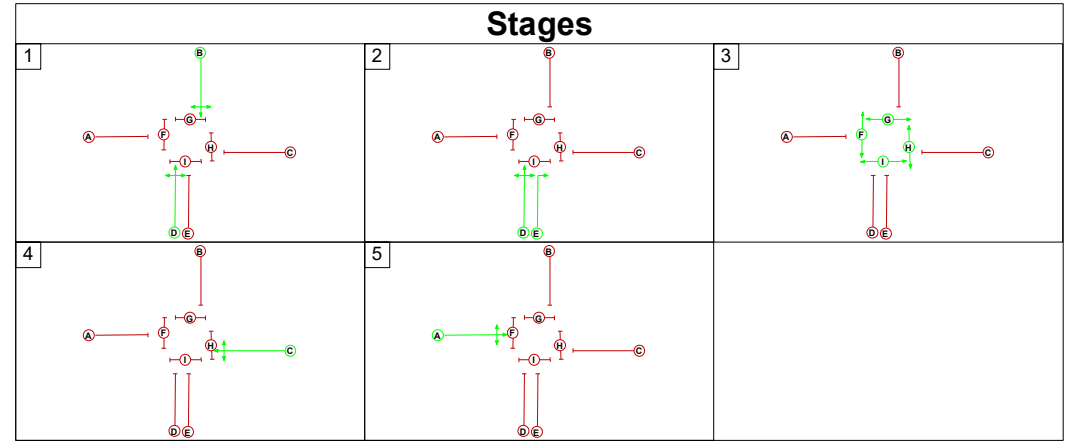
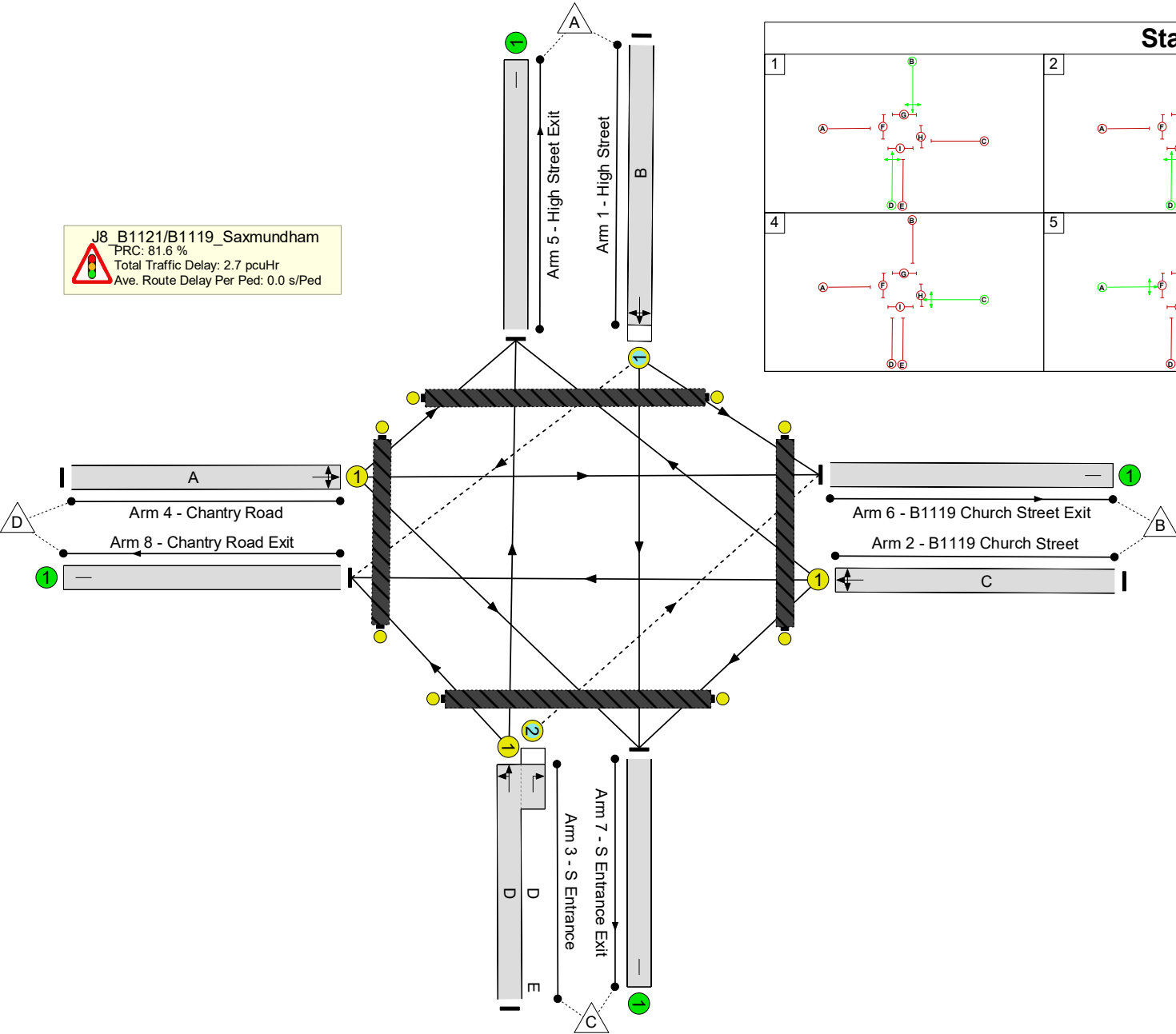
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 81.6 %  
 Total Traffic Delay: 2.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	49.6%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	49.6%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	98	1631	198	49.6%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	64	1800	218	29.3%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	64	1853:1875	380+295	9.5 : 9.5%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	45	1819	220	20.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	60	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	129	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	58	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

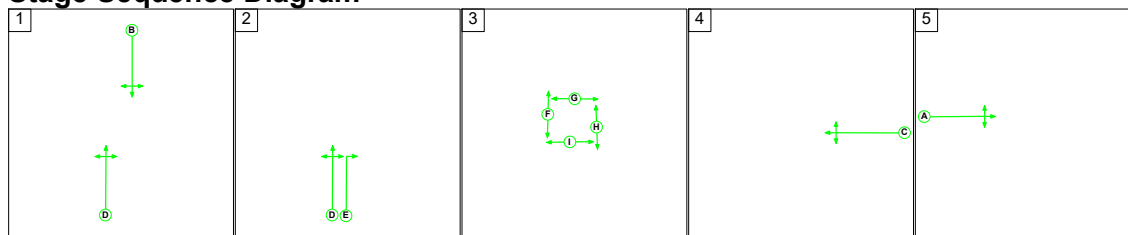
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	26	3	0	1.8	0.9	0.0	2.7	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	26	3	0	1.8	0.9	0.0	2.7	-	-	-	-
1/1	98	98	2	0	0	0.7	0.5	0.0	1.2	45.0	1.7	0.5	2.1
2/1	64	64	-	-	-	0.5	0.2	-	0.7	38.1	1.1	0.2	1.3
3/1+3/2	64	64	24	3	0	0.3	0.1	0.0	0.4	20.7	0.5	0.1	0.5
4/1	45	45	-	-	-	0.3	0.1	-	0.5	36.4	0.7	0.1	0.9
5/1	60	60	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	129	129	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	58	58	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	81.6	Total Delay for Signalled Lanes (pcuHr):			2.73	Cycle Time (s): 66				
			PRC Over All Lanes (%):	81.6	Total Delay Over All Lanes(pcuHr):			2.73					

Full Input Data And Results

Scenario 27: '2034 Reference Case 7-8AM' (FG27: '34RC\_7-8AM', Plan 1: '5 stages')

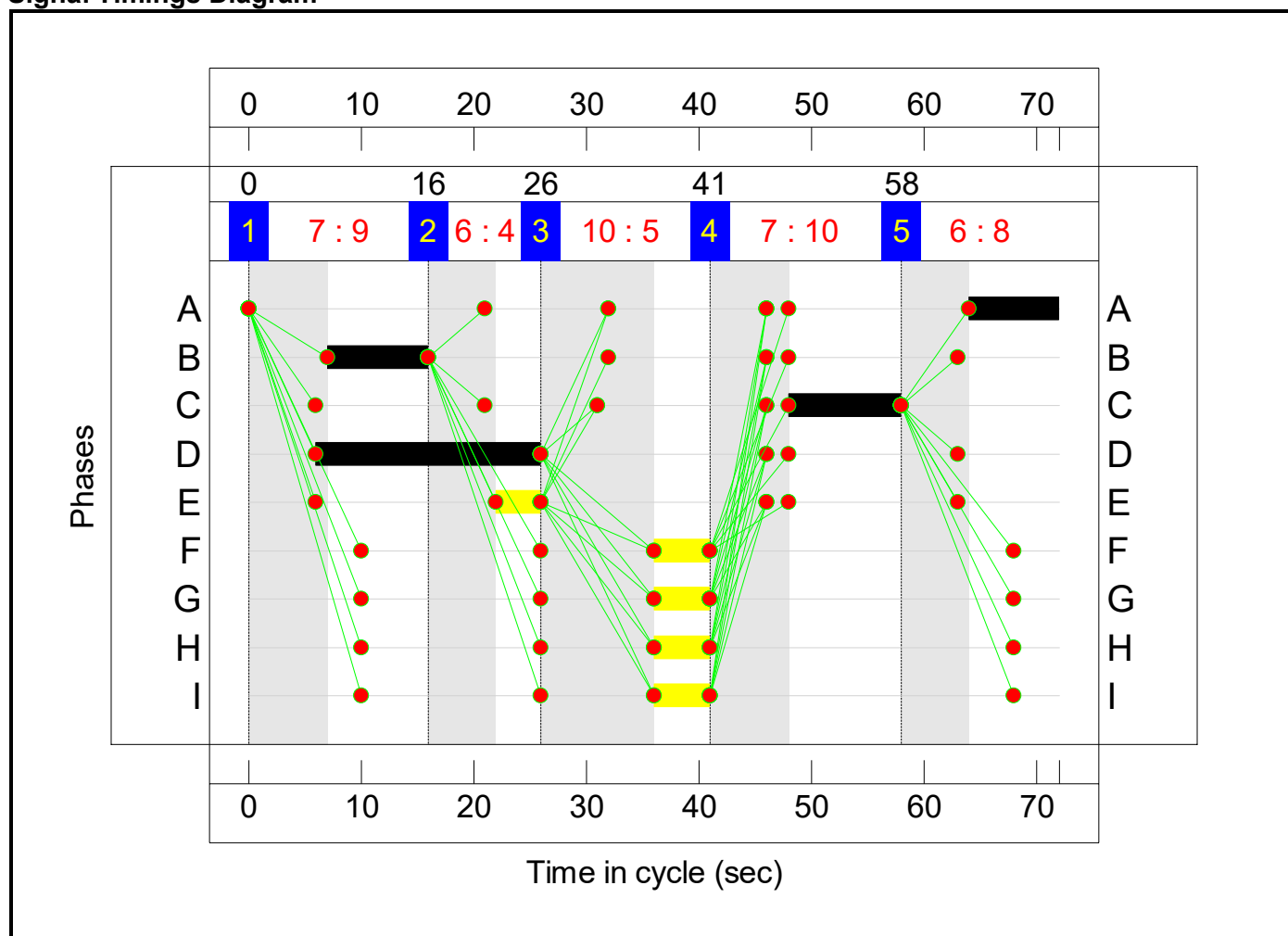
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	9	4	5	10	8
Change Point	0	16	26	41	58

Signal Timings Diagram

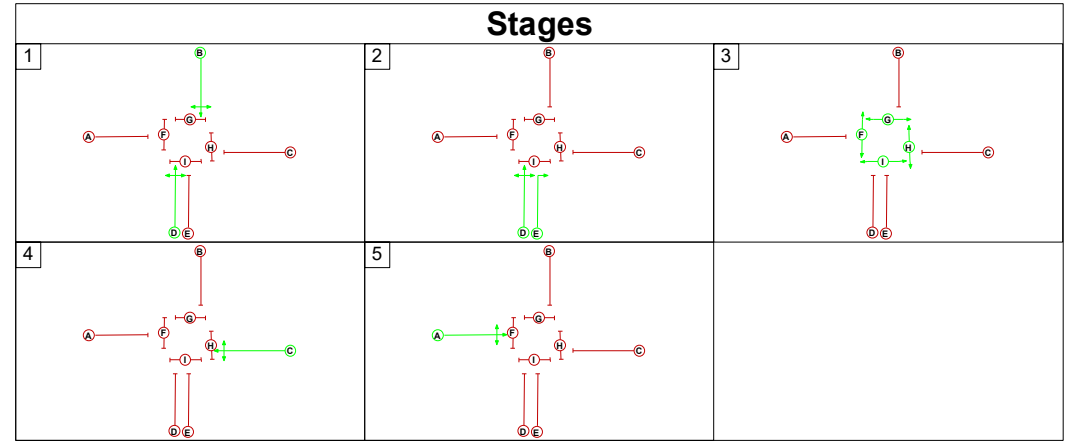
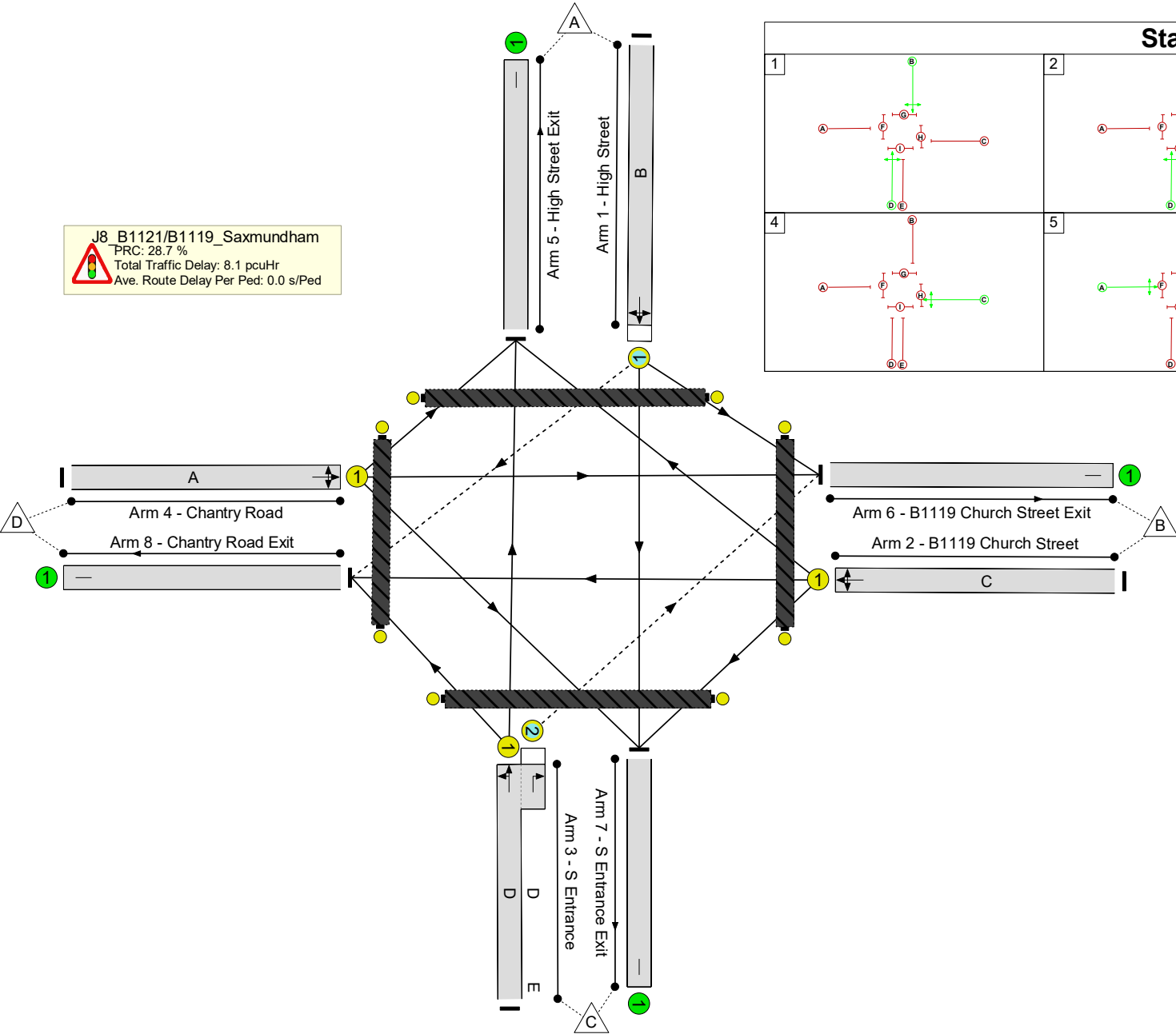


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 28.7 %  
 Total Traffic Delay: 8.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>69.9%</b>
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>69.9%</b>
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	9	-	138	1768	197	69.9%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	10	-	188	1800	275	68.4%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	20	4	157	1847:1875	223+315	29.2 : 29.2%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	8	-	147	1792	224	65.6%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	159	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	156	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	73	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

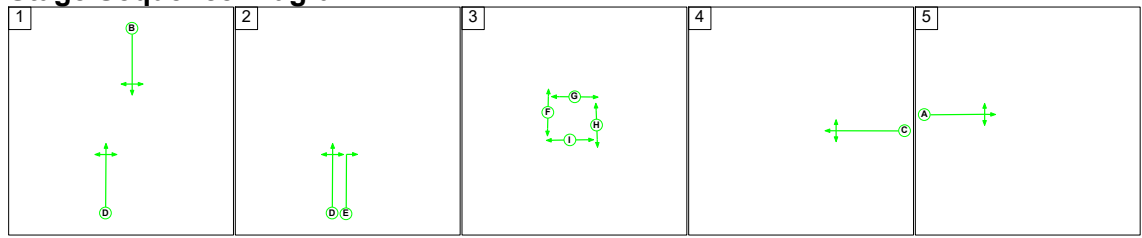
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	87	10	1	4.7	3.3	0.1	8.1	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	87	10	1	4.7	3.3	0.1	8.1	-	-	-	-
1/1	138	138	7	0	0	1.2	1.1	0.0	2.3	59.4	2.6	1.1	3.8
2/1	188	188	-	-	-	1.5	1.1	-	2.6	49.1	3.6	1.1	4.6
3/1+3/2	157	157	81	10	1	0.8	0.2	0.1	1.1	25.3	1.4	0.2	1.6
4/1	147	147	-	-	-	1.2	0.9	-	2.2	52.9	2.8	0.9	3.7
5/1	159	159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	156	156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	73	73	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	28.7	Total Delay for Signalled Lanes (pcuHr):			8.10	Cycle Time (s):		72		
			PRC Over All Lanes (%):	28.7	Total Delay Over All Lanes(pcuHr):			8.10					

Full Input Data And Results

Scenario 28: '2034 Reference Case 8-9AM' (FG28: '34RC\_8-9AM', Plan 1: '5 stages')

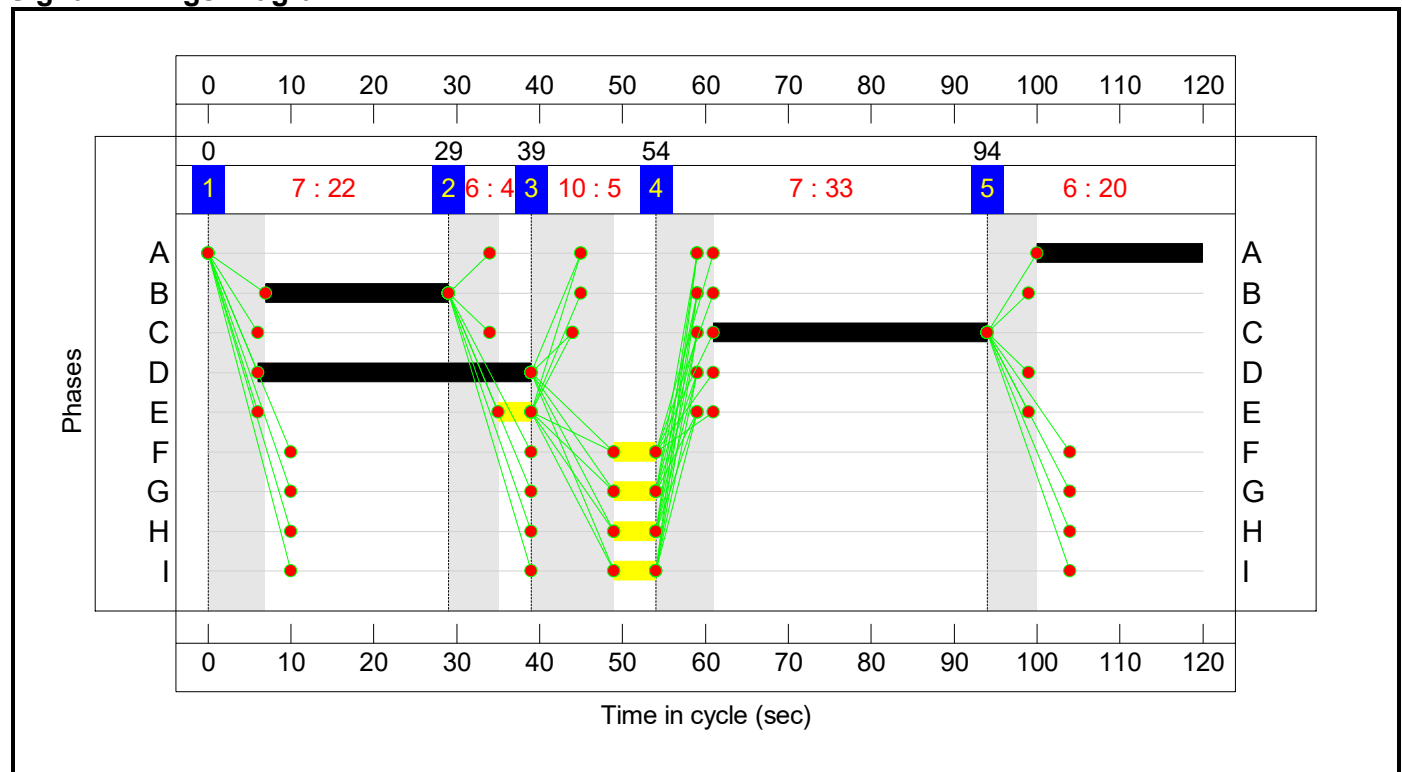
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	22	4	5	33	20
Change Point	0	29	39	54	94

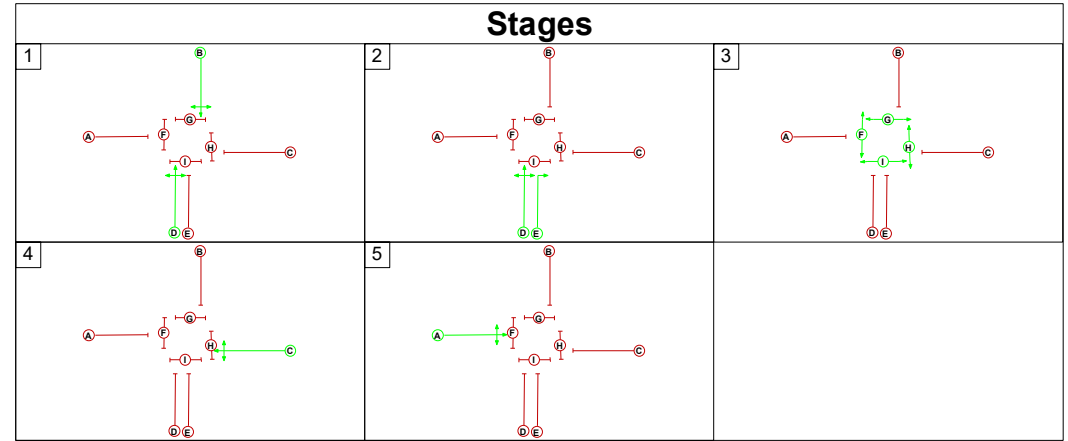
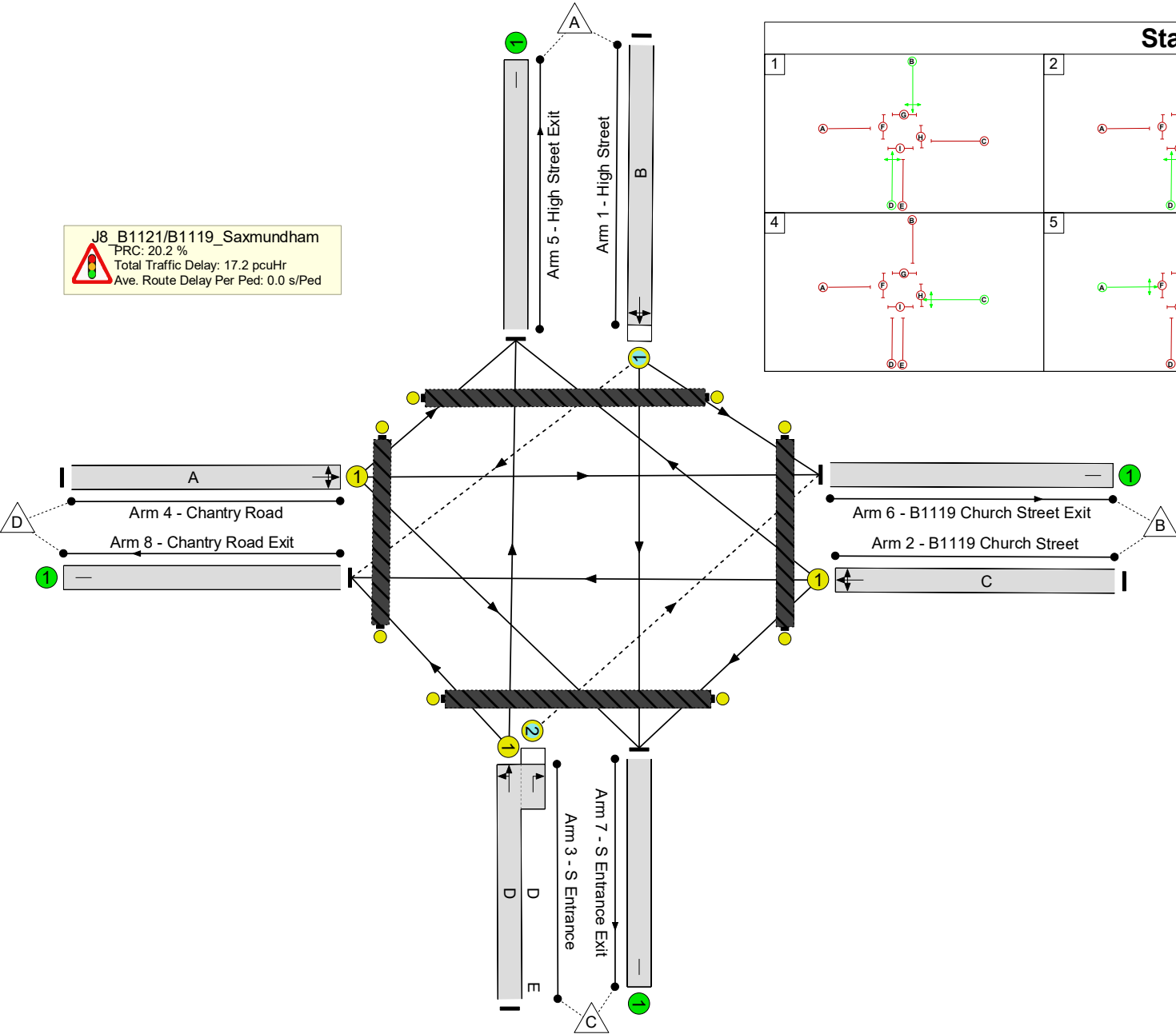
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 20.2 %  
 Total Traffic Delay: 17.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	22	-	162	1686	225	72.0%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	33	-	382	1800	510	74.9%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	33	4	324	1833:1875	320+247	57.2 : 57.2%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	20	-	225	1745	305	73.7%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	193	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	133	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

Full Input Data And Results

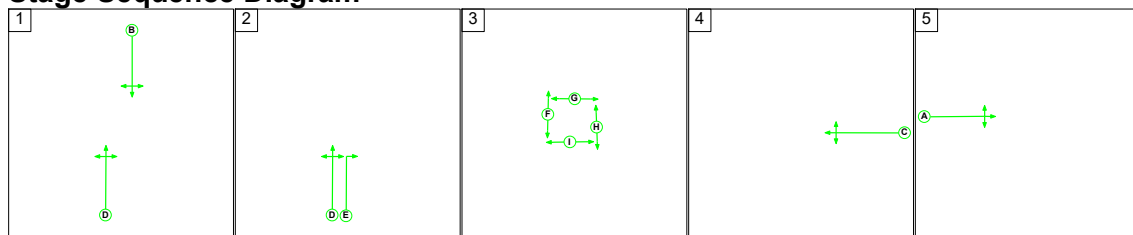
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	133	15	1	12.4	4.7	0.1	17.2	-	-	-	-
<b>J8_B1121/B1119_Saxmundham</b>	-	-	133	15	1	12.4	4.7	0.1	17.2	-	-	-	-
1/1	162	162	8	0	0	2.2	1.2	0.0	3.4	76.1	5.1	1.2	6.4
2/1	382	382	-	-	-	4.2	1.5	-	5.6	52.9	11.6	1.5	13.0
3/1+3/2	324	324	125	15	1	3.1	0.7	0.1	3.9	43.5	6.7	0.7	7.3
4/1	225	225	-	-	-	2.9	1.4	-	4.3	68.6	7.1	1.4	8.4
5/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	20.2	Total Delay for Signalled Lanes (pcuHr):			17.23	Cycle Time (s): 120				
			PRC Over All Lanes (%):	20.2	Total Delay Over All Lanes(pcuHr):			17.23					



Full Input Data And Results

Scenario 29: '2034 Reference Case 3-4PM' (FG29: '34RC\_3-4PM', Plan 1: '5 stages')

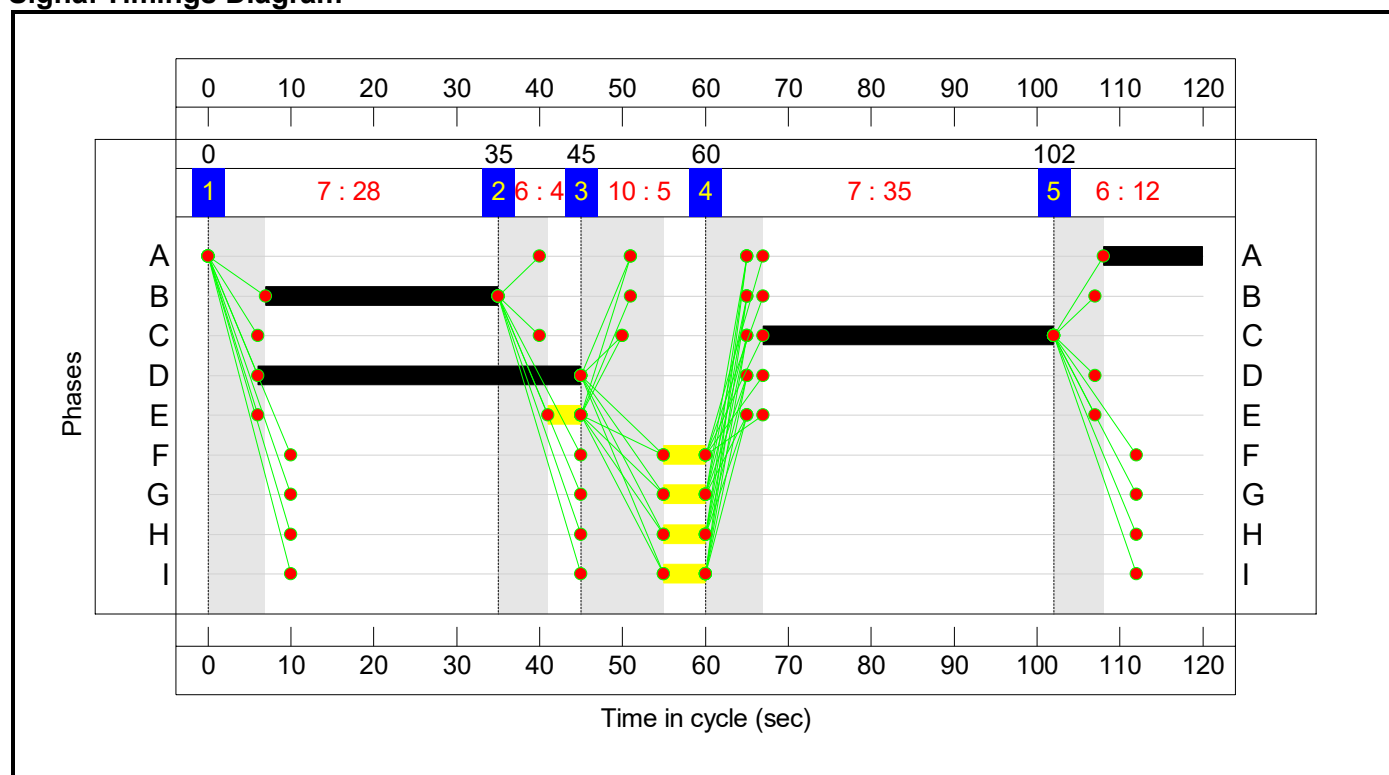
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	5	35	12
Change Point	0	35	45	60	102

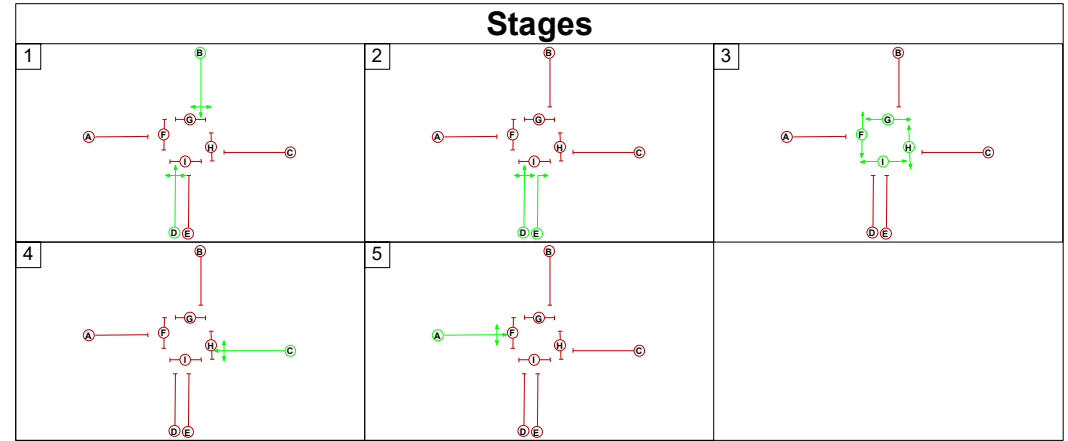
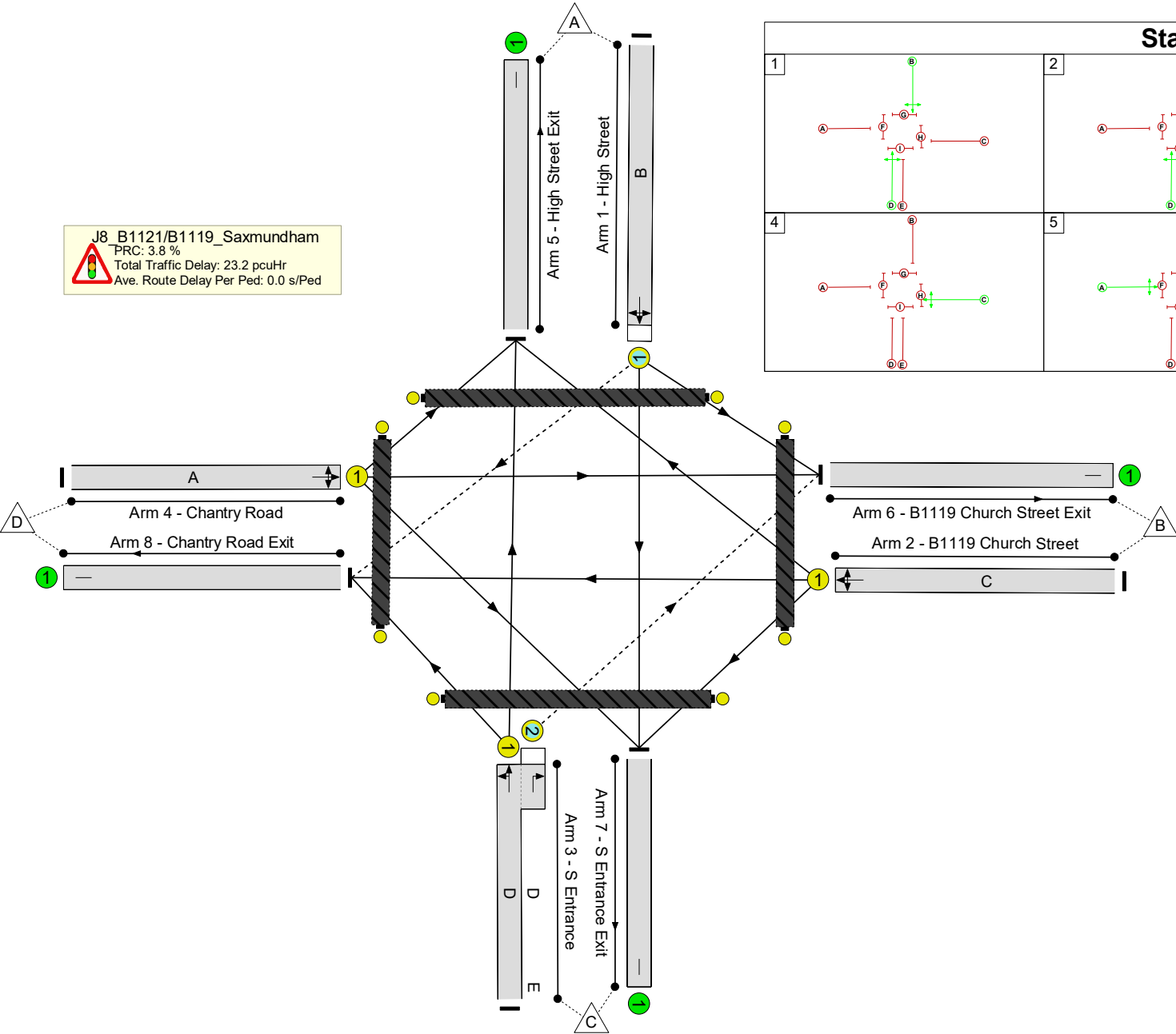
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 3.8 %  
 Total Traffic Delay: 23.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

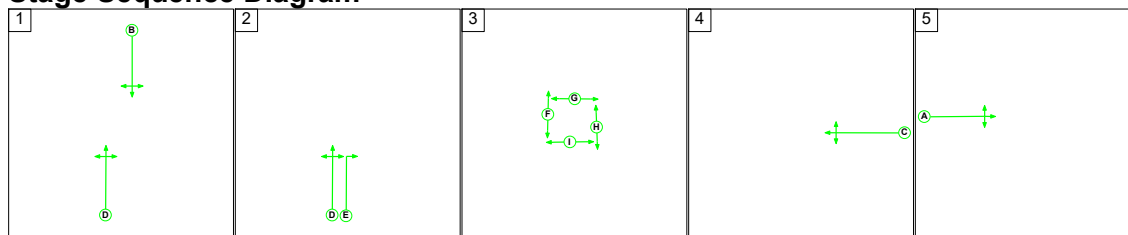
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	28	-	258	1660	307	84.1%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	468	1800	540	86.7%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	39	4	352	1801:1875	243+252	71.1 : 71.1%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	163	1784	193	84.3%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	436	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 30: '2034 Reference Case 5-6PM' (FG30: '34RC\_5-6PM', Plan 1: '5 stages')

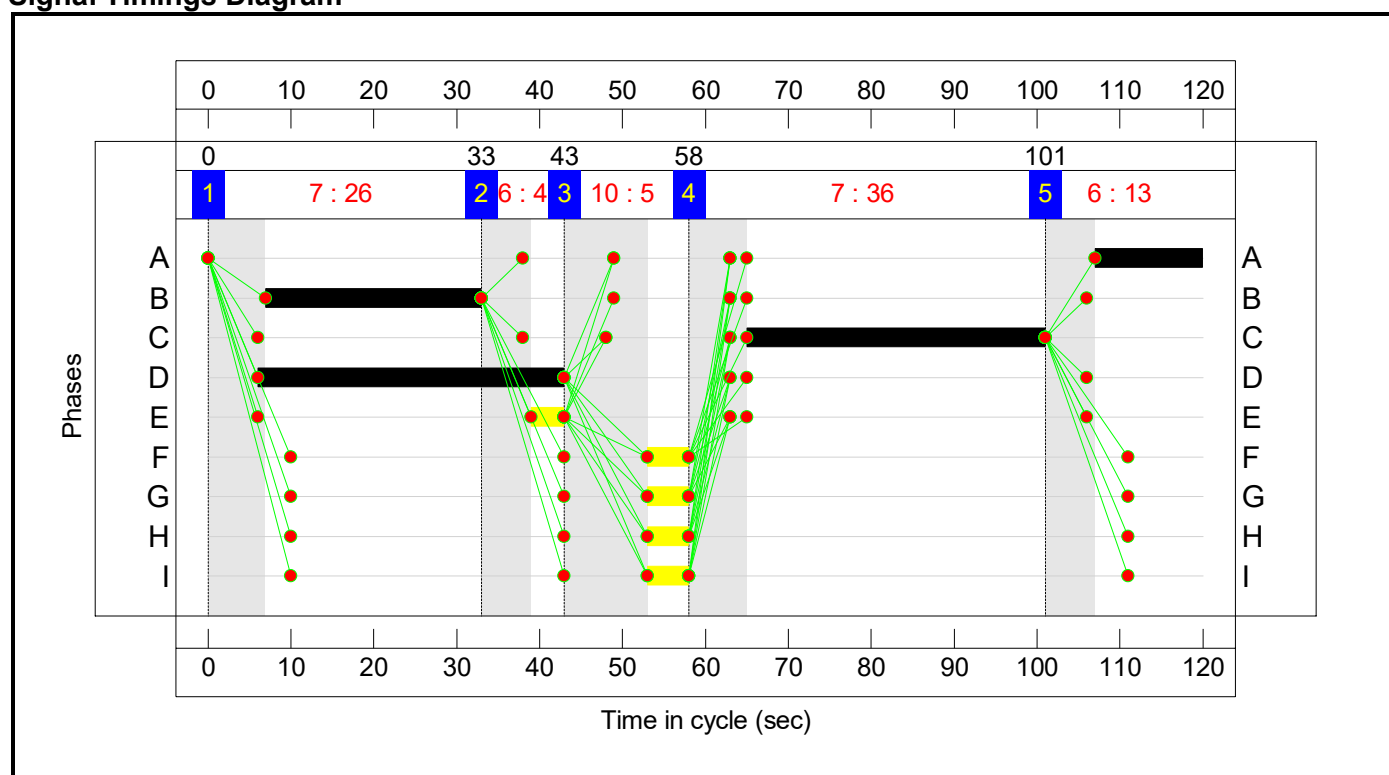
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	26	4	5	36	13
Change Point	0	33	43	58	101

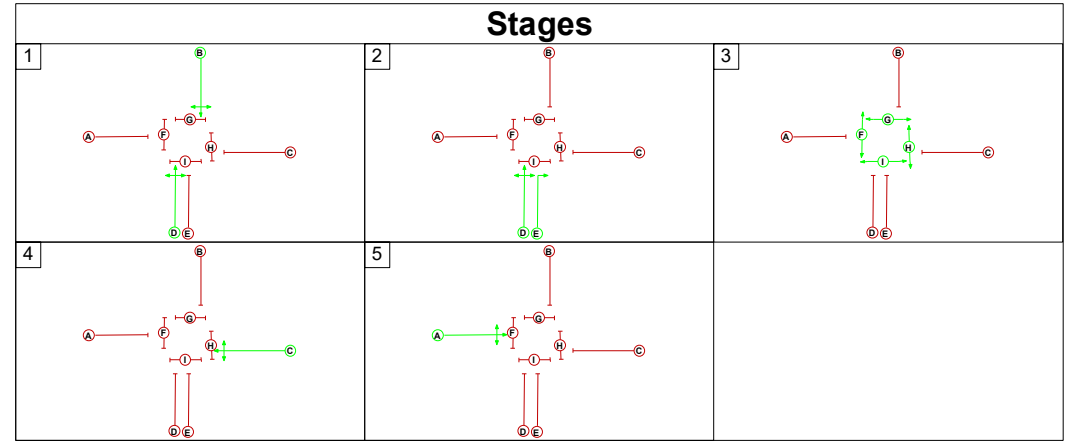
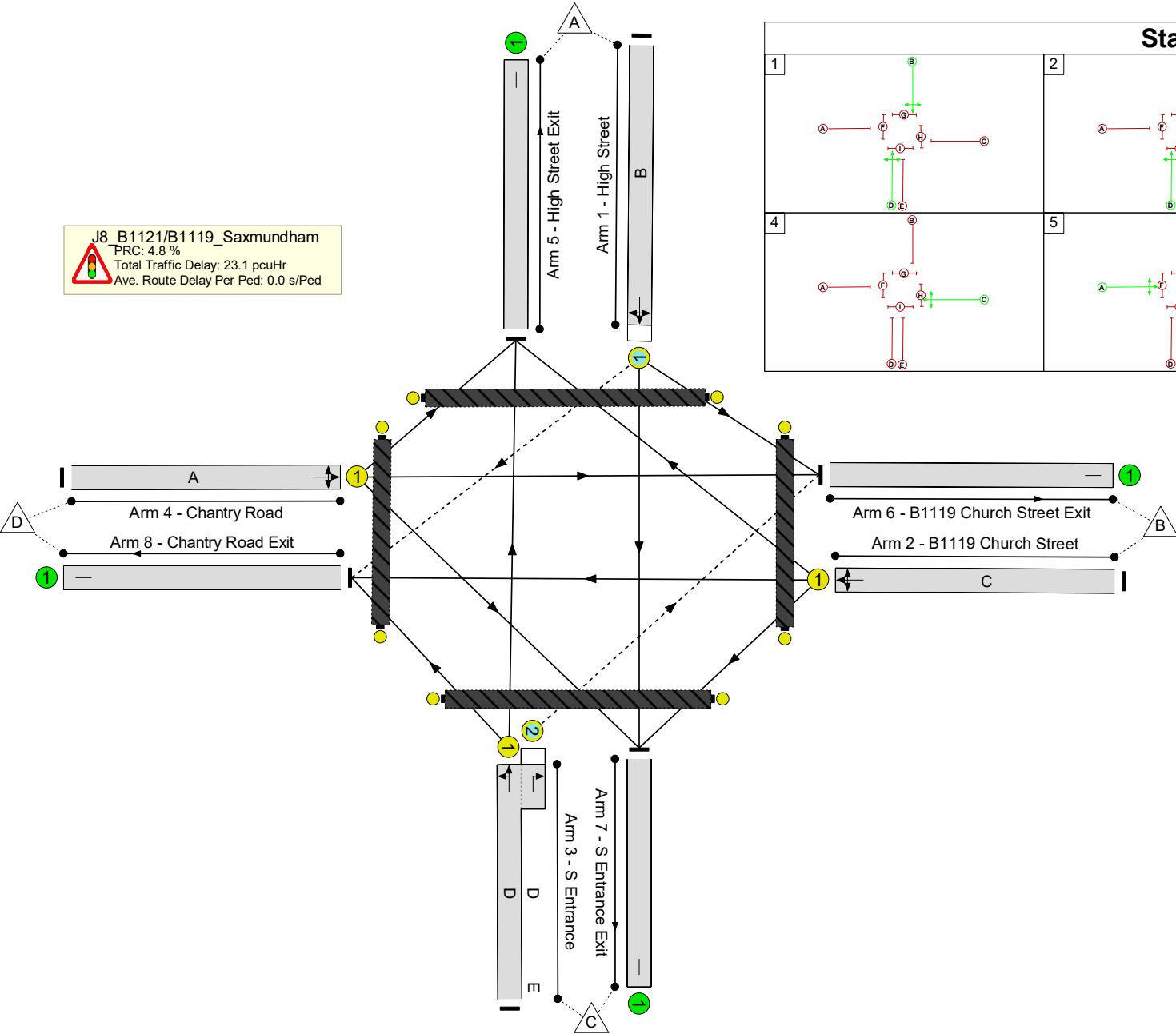
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 4.8 %  
 Total Traffic Delay: 23.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

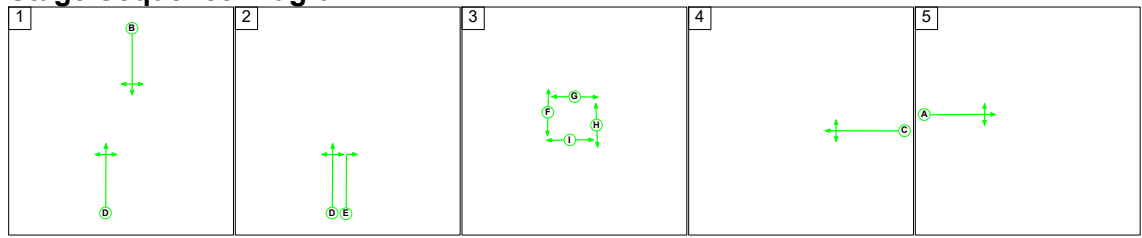
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	85.9%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	85.9%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	26	-	253	1684	297	85.3%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	36	-	472	1800	555	85.0%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	37	4	306	1823:1875	205+233	69.8 : 69.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	13	-	183	1827	213	85.9%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	434	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 31: '2034 Operational Led 6-7AM' (FG31: '34OP\_6-7AM', Plan 1: '5 stages')

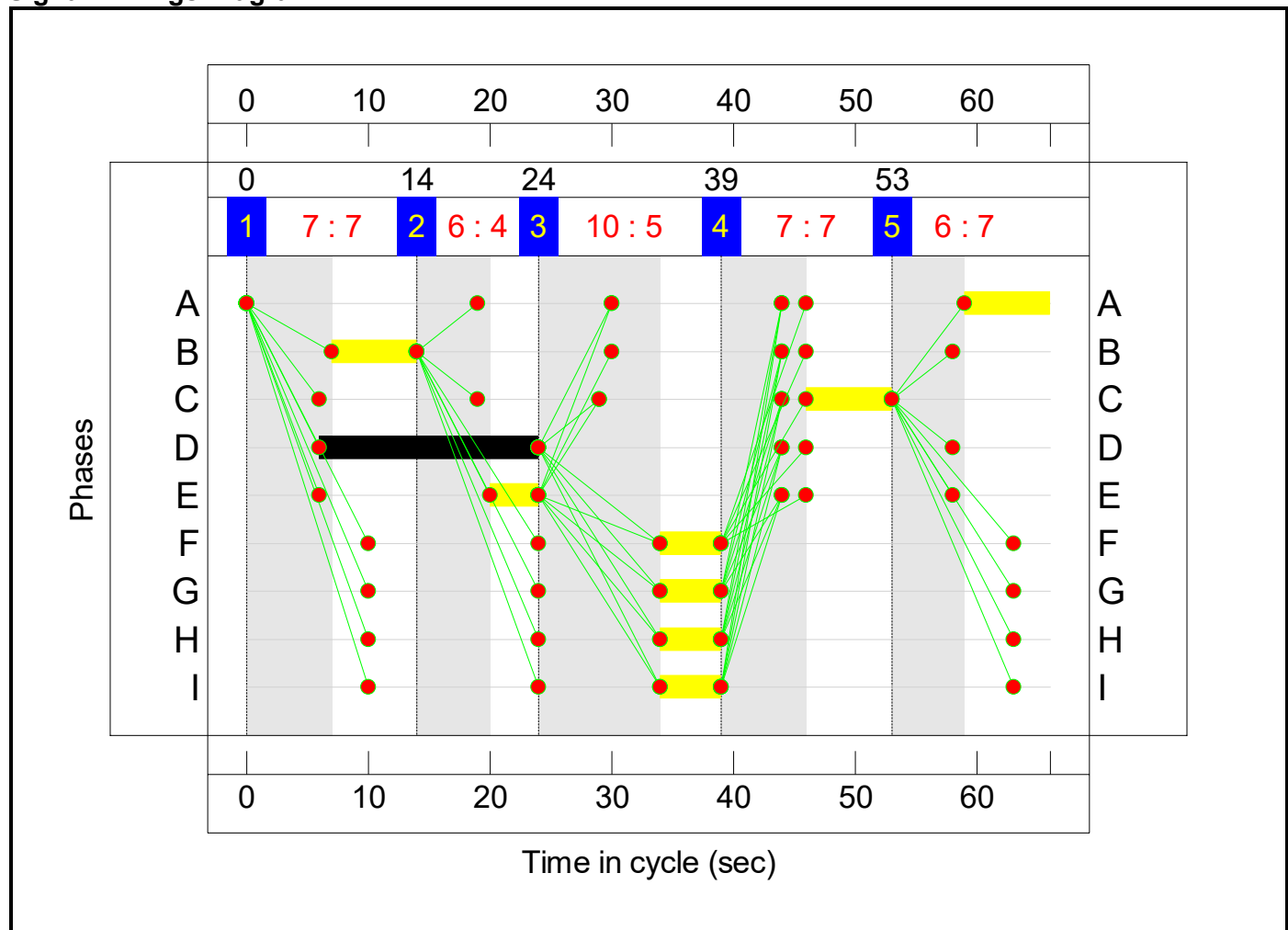
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	7	4	5	7	7
Change Point	0	14	24	39	53

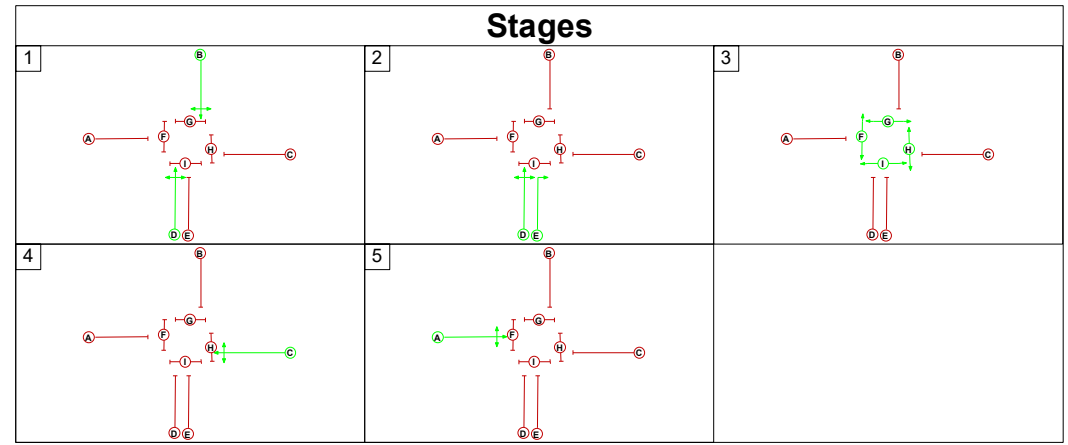
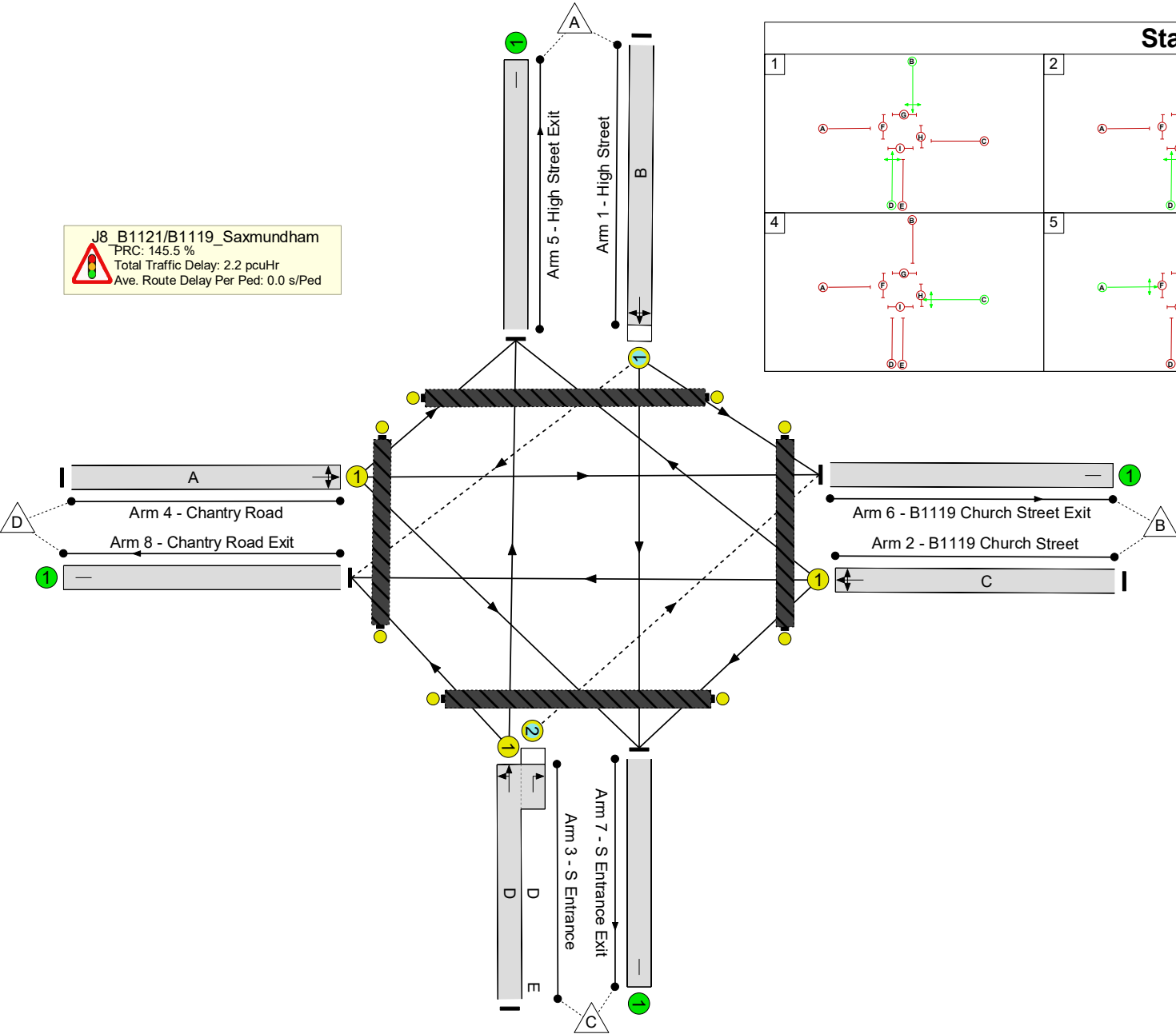
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 145.5 %  
 Total Traffic Delay: 2.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

**Network Results**

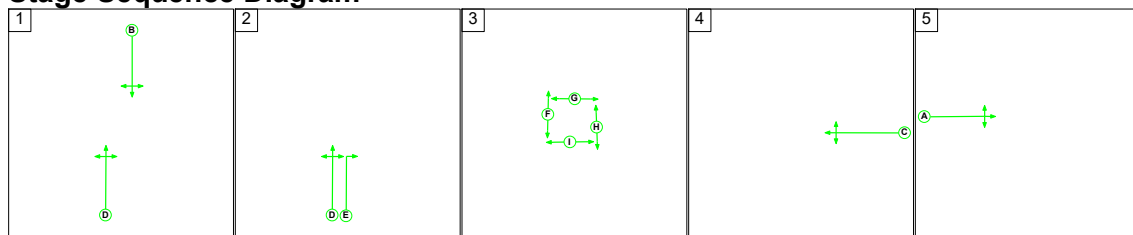
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	36.7%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	36.7%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	7	-	74	1665	202	36.7%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	7	-	55	1800	218	25.2%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	18	4	65	1852:1875	370+317	9.5 : 9.5%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	7	-	45	1819	220	20.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	109	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 32: '2034 Operational Led 7-8AM' (FG32: '34OP\_7-8AM', Plan 1: '5 stages')

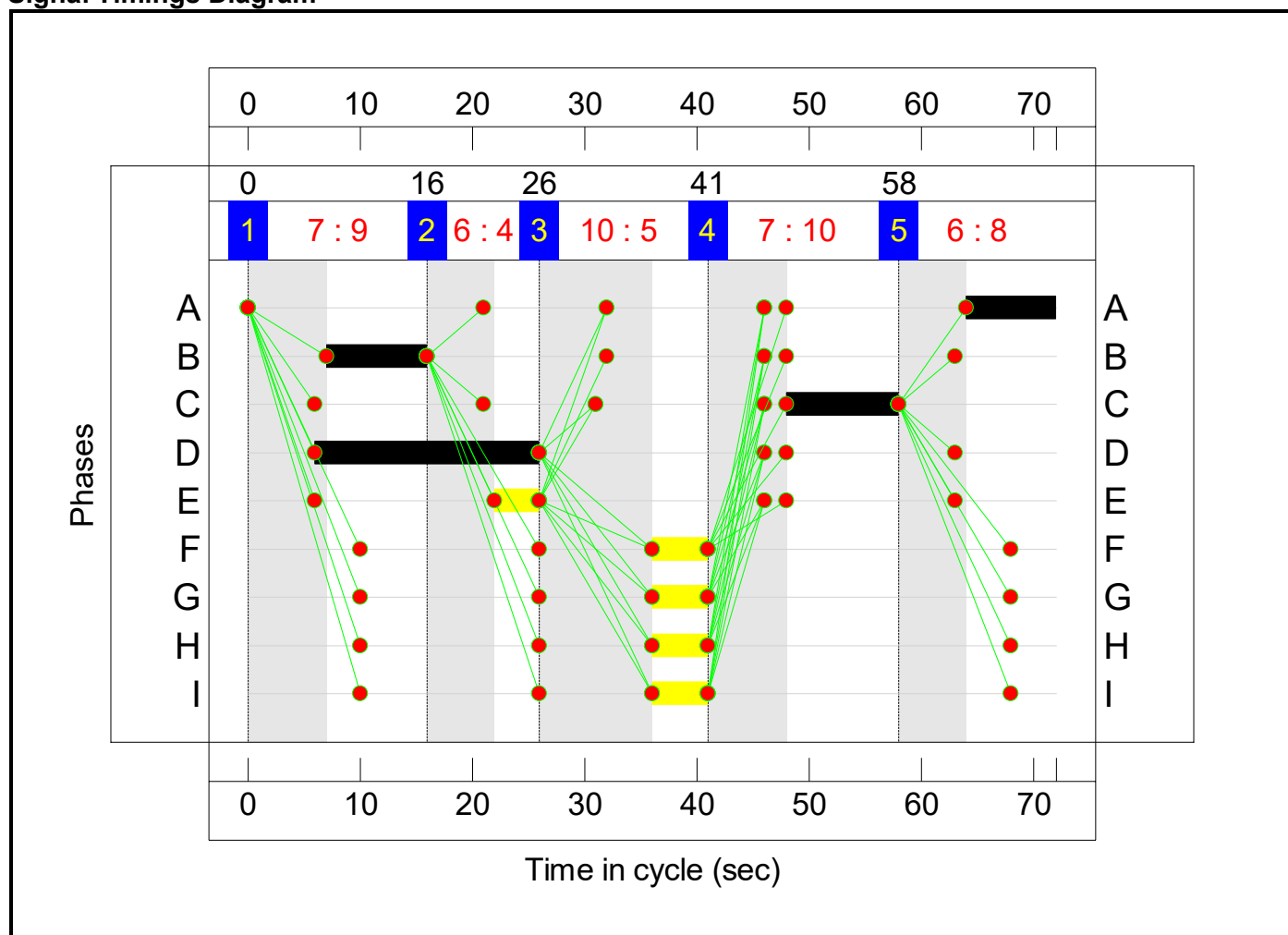
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	9	4	5	10	8
Change Point	0	16	26	41	58

Signal Timings Diagram

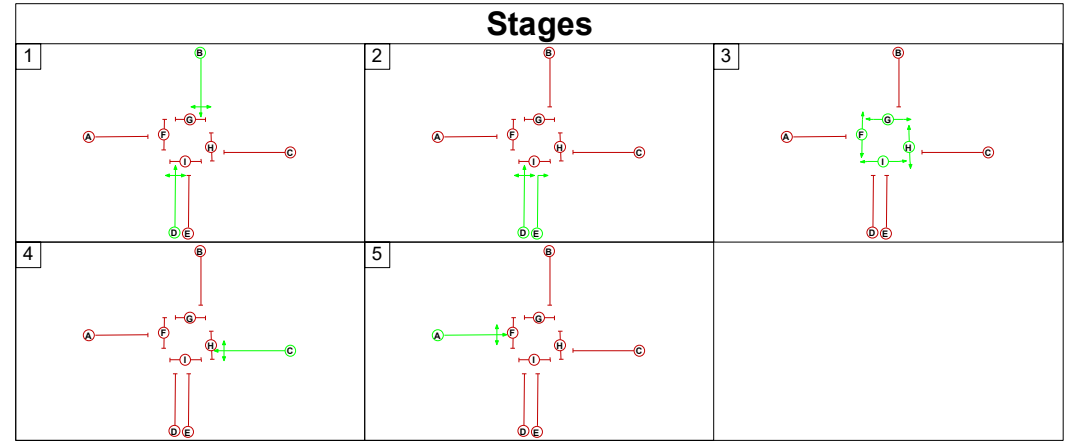
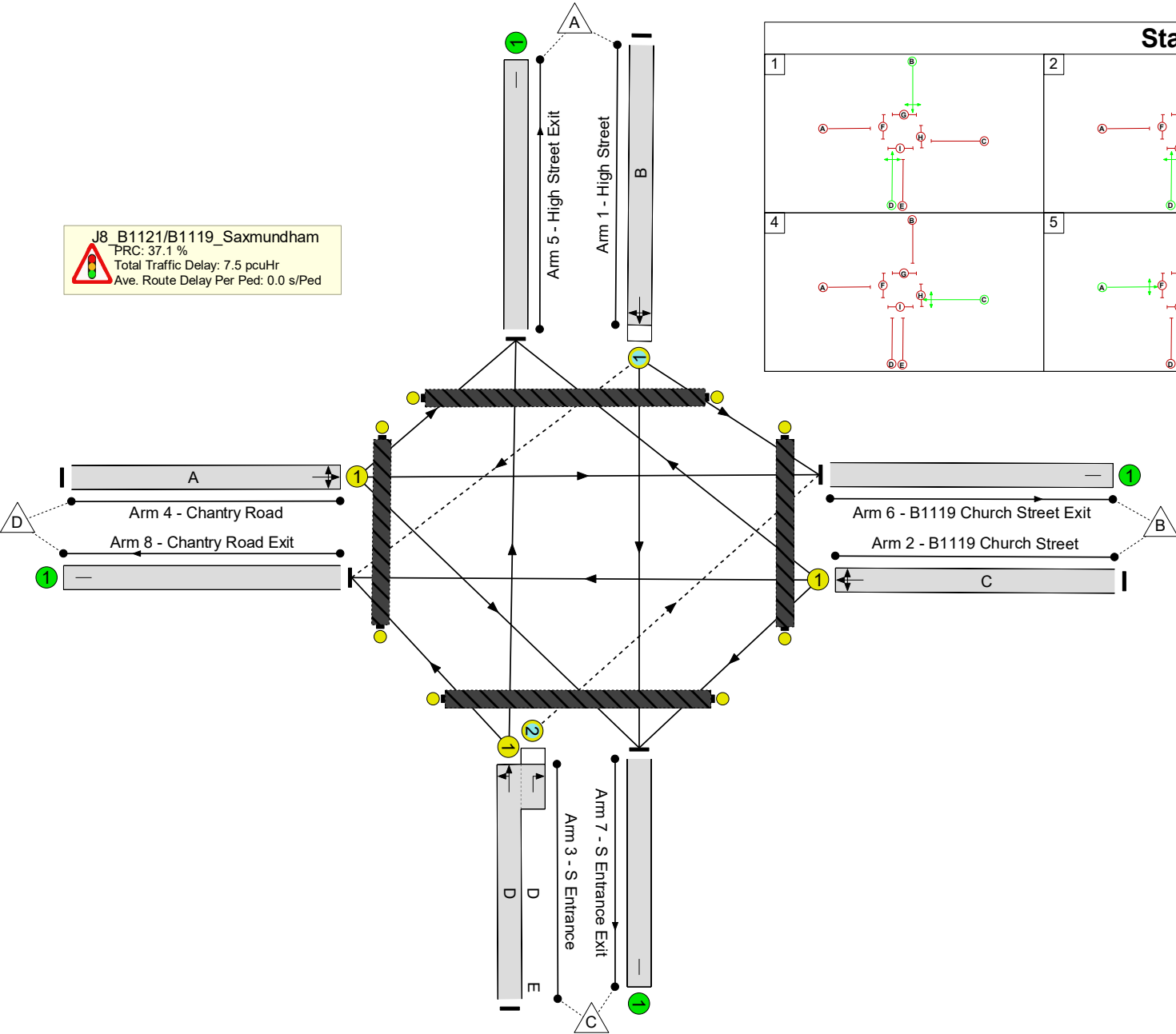




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 37.1 %  
 Total Traffic Delay: 7.5 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.6%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.6%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	9	-	126	1761	197	64.0%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	10	-	175	1800	275	63.6%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	20	4	163	1844:1875	196+319	31.7 : 31.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	8	-	147	1792	224	65.6%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	144	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	146	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	73	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

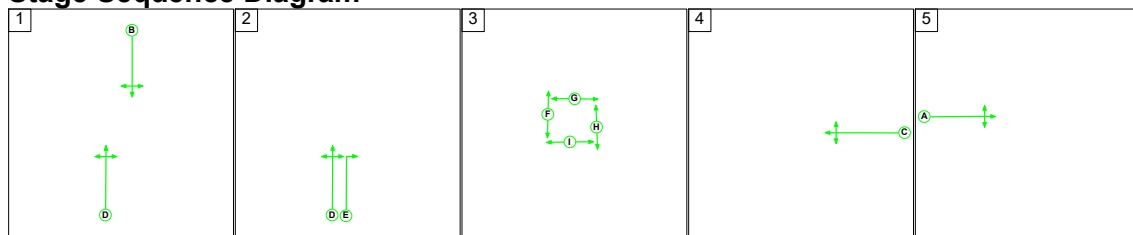
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	95	11	2	4.5	2.9	0.1	7.5	-	-	-	-	
<b>J8_B1121/B1119_Saxmundham</b>	-	-	95	11	2	4.5	2.9	0.1	7.5	-	-	-	-	
1/1	126	126	7	0	0	1.0	0.9	0.0	1.9	54.7	2.4	0.9	3.2	
2/1	175	175	-	-	-	1.4	0.9	-	2.3	46.3	3.3	0.9	4.1	
3/1+3/2	163	163	88	11	1	0.9	0.2	0.1	1.2	26.0	1.6	0.2	1.8	
4/1	147	147	-	-	-	1.2	0.9	-	2.2	52.9	2.8	0.9	3.7	
5/1	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	73	73	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-	
C1			PRC for Signalled Lanes (%):	37.1	Total Delay for Signalled Lanes (pcuHr):			7.50	Cycle Time (s):		72	PRC Over All Lanes (%):		37.1
				37.1	Total Delay Over All Lanes(pcuHr):			7.50						

Full Input Data And Results

Scenario 33: '2034 Operational Led 8-9AM' (FG33: '34OP\_8-9AM', Plan 1: '5 stages')

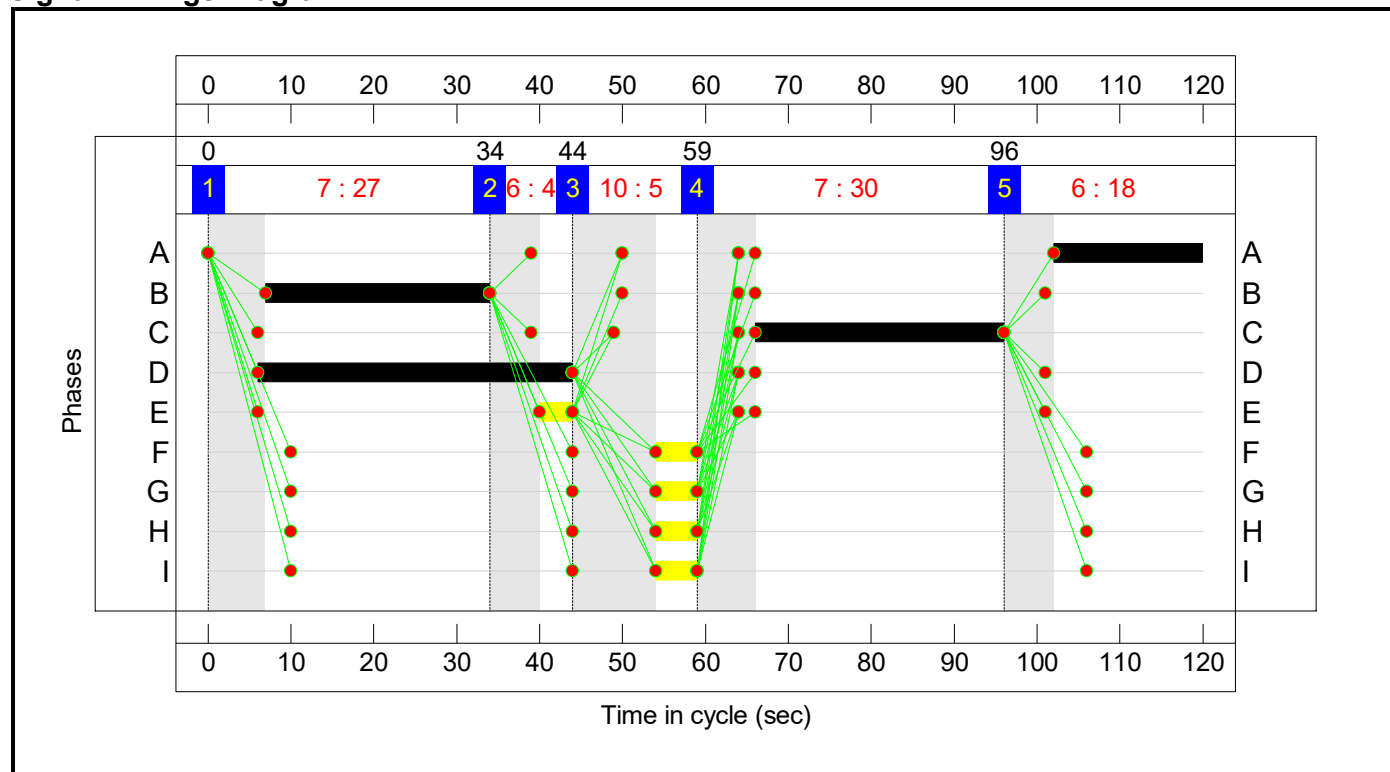
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	4	5	30	18
Change Point	0	34	44	59	96

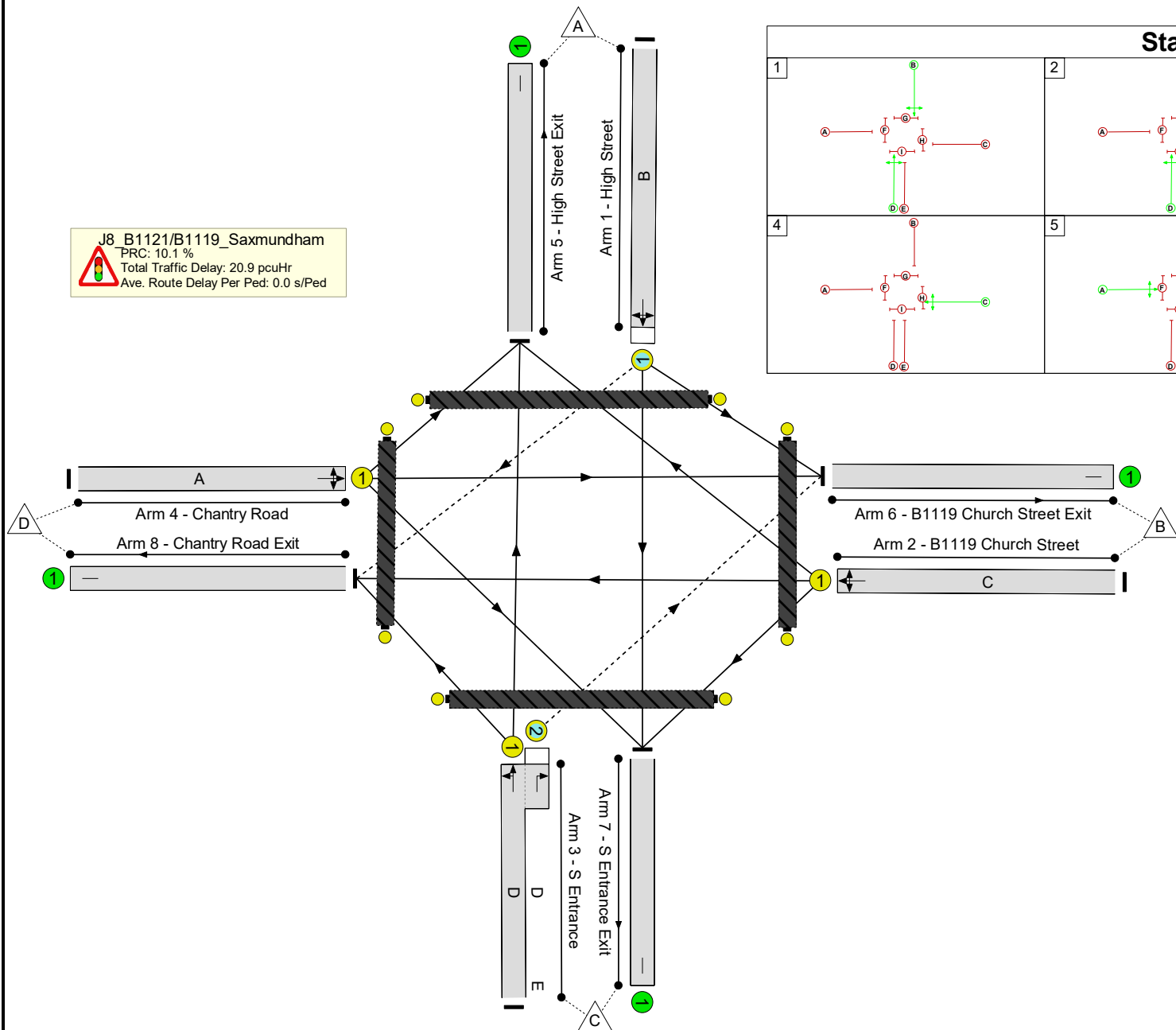
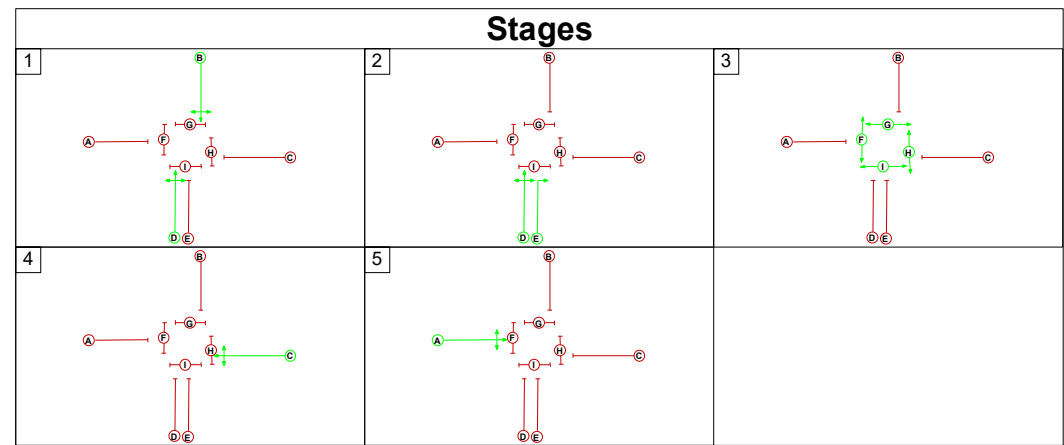
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 10.1 %  
 Total Traffic Delay: 20.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	27	-	172	1672	336	51.2%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	30	-	380	1800	465	81.7%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	38	4	428	1832:1875	223+301	81.7 : 81.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	18	-	225	1745	276	81.4%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	397	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	478	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	133	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

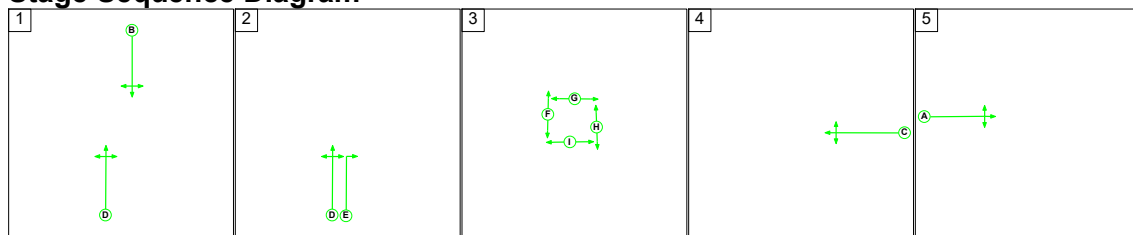




Full Input Data And Results

Scenario 34: '2034 Operational Led 3-4PM' (FG34: '34OP\_3-4PM', Plan 1: '5 stages')

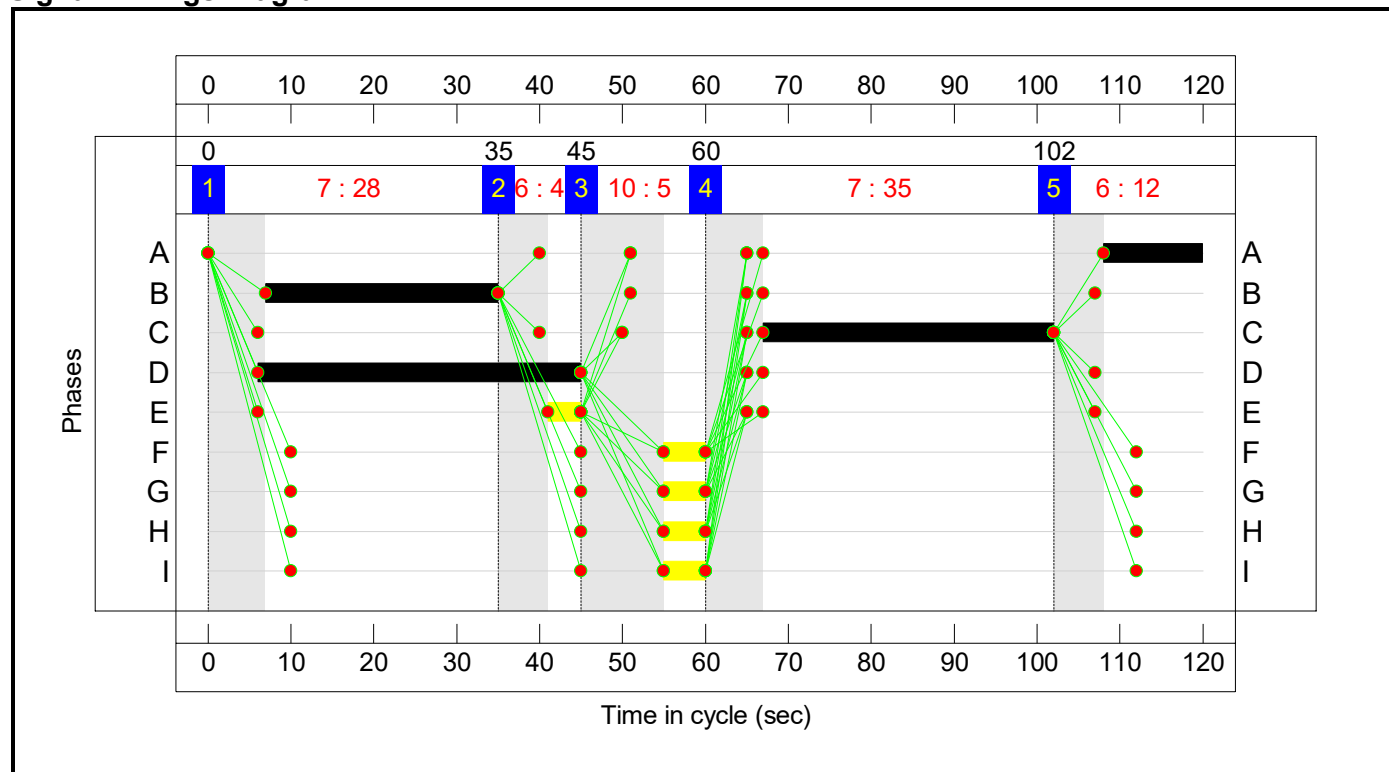
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	5	35	12
Change Point	0	35	45	60	102

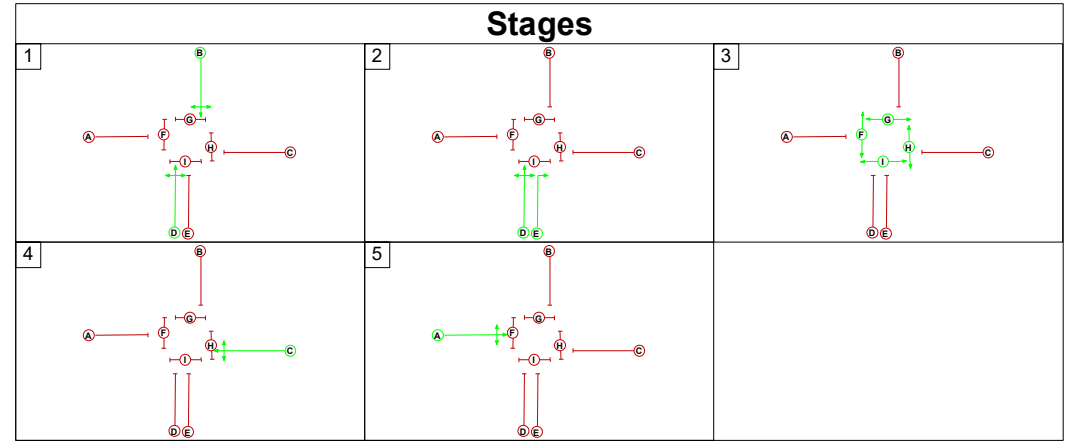
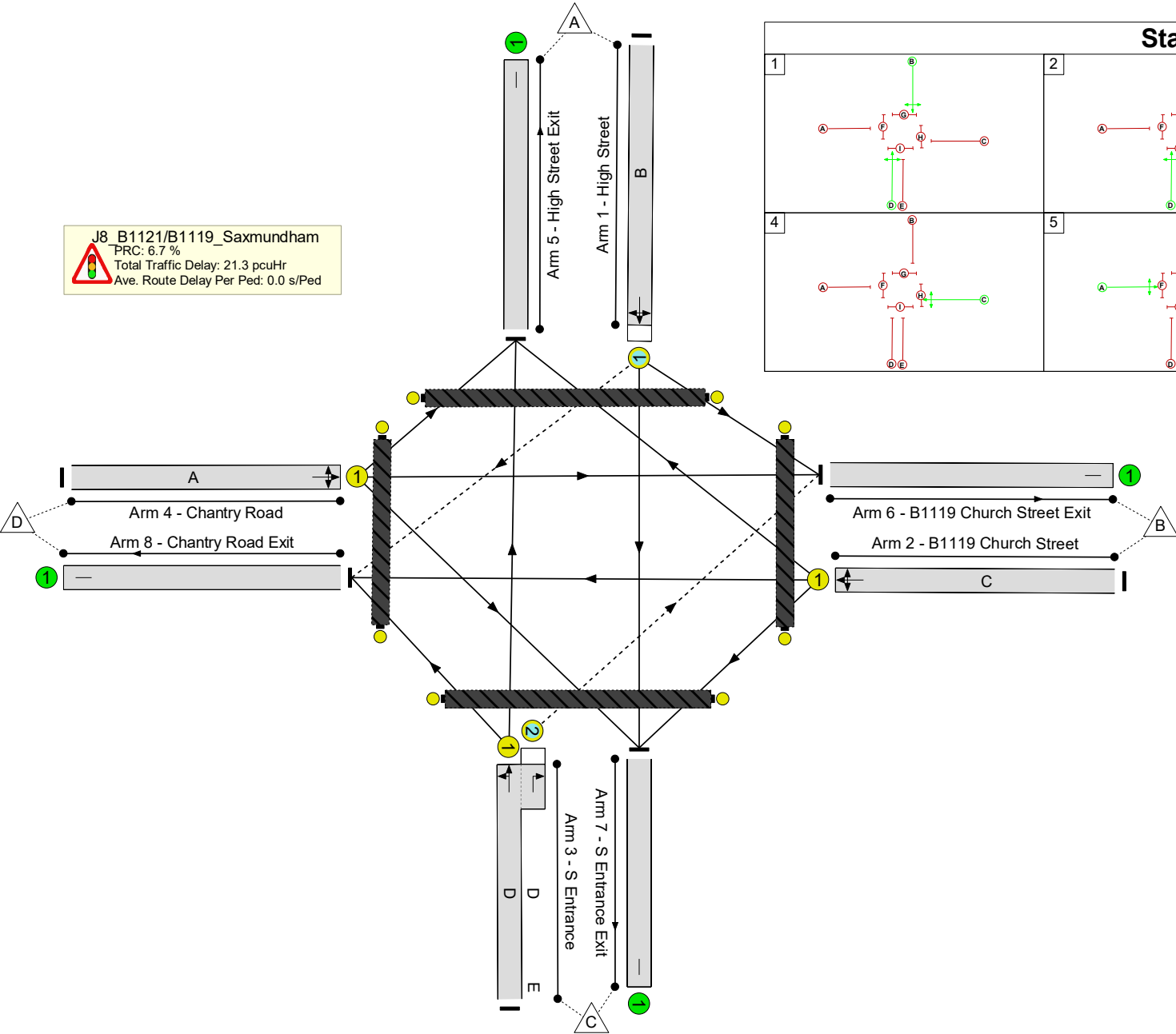
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 6.7 %  
 Total Traffic Delay: 21.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

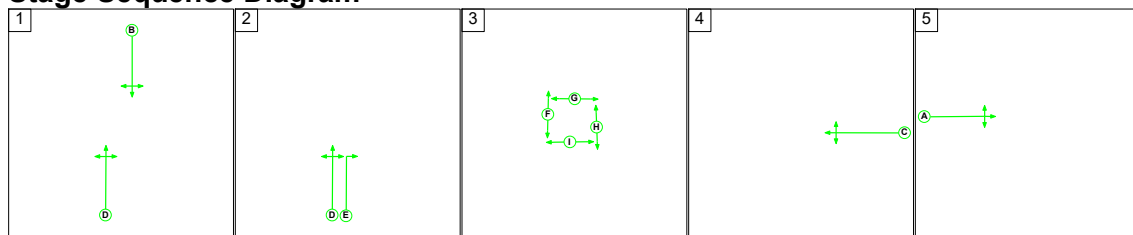
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	28	-	244	1663	307	79.4%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	35	-	451	1800	540	83.5%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	39	4	346	1799:1875	251+260	67.8 : 67.8%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	12	-	163	1784	193	84.3%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%



Full Input Data And Results

Scenario 35: '2034 Operational Led 5-6PM' (FG35: '34OP\_5-6PM', Plan 1: '5 stages')

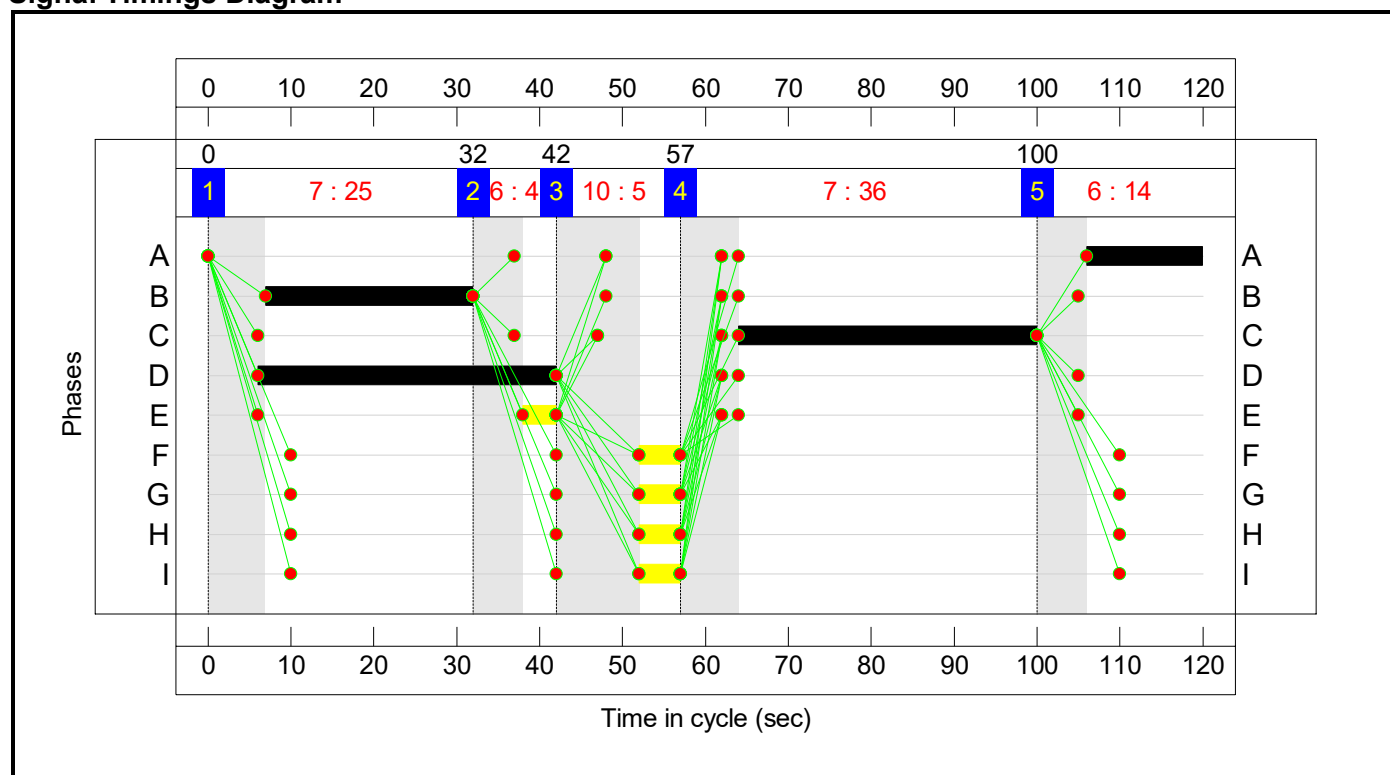
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	25	4	5	36	14
Change Point	0	32	42	57	100

Signal Timings Diagram

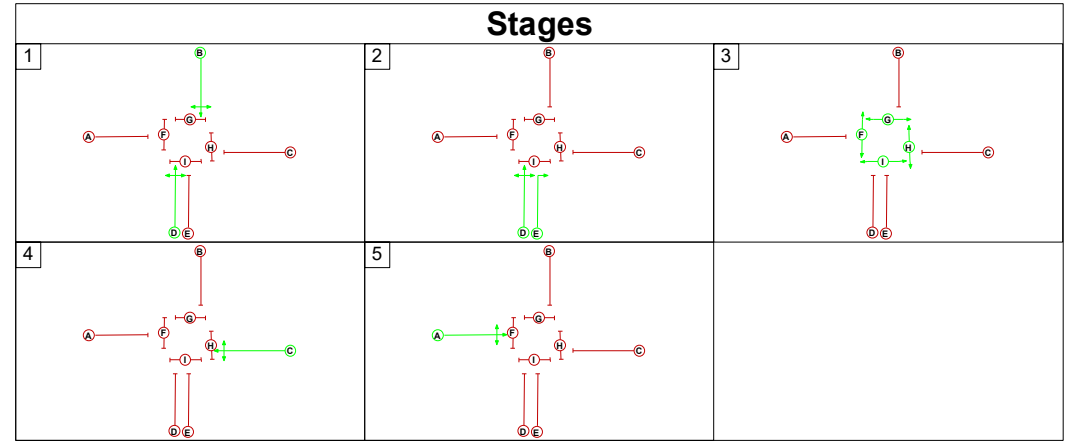
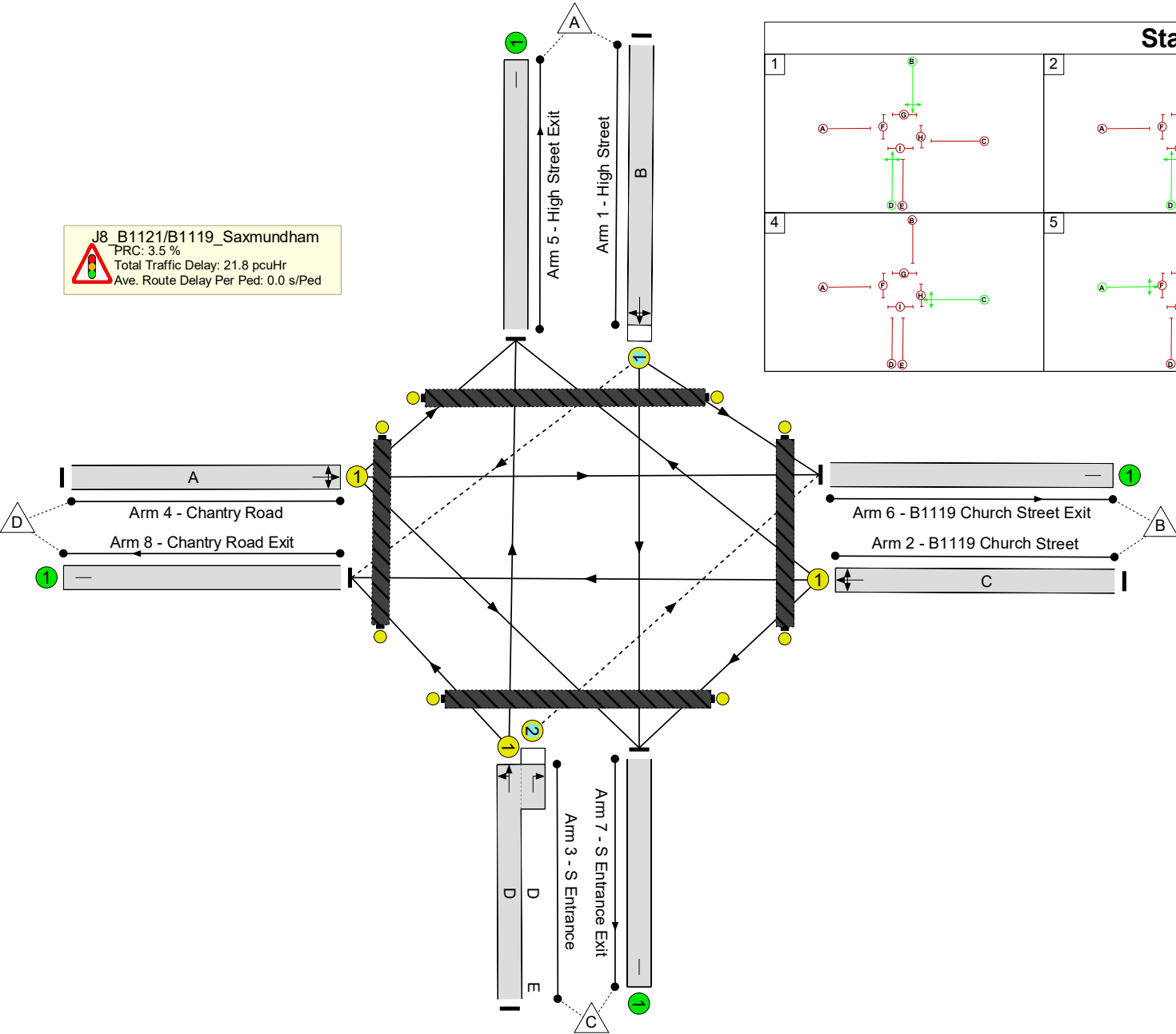


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J8\_B1121/B1119\_Saxmundham  
 PRC: 3.5 %  
 Total Traffic Delay: 21.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J8 (B1121 / B1119 Saxmundham)</b>	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
<b>J8_B1121/B1119_Saxmundham</b>	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
1/1	High Street Left Ahead Right	O	N/A	N/A	B		1	25	-	241	1692	277	87.0%
2/1	B1119 Church Street Right Left Ahead	U	N/A	N/A	C		1	36	-	449	1800	555	80.9%
3/1+3/2	S Entrance Ahead Right Left	U+O	N/A	N/A	D	E	1	36	4	337	1840:1875	252+231	69.7 : 69.7%
4/1	Chantry Road Left Ahead Right	U	N/A	N/A	A		1	14	-	183	1827	228	80.1%
5/1	High Street Exit	U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
6/1	B1119 Church Street Exit	U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
7/1	S Entrance Exit	U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
8/1	Chantry Road Exit	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	5	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%

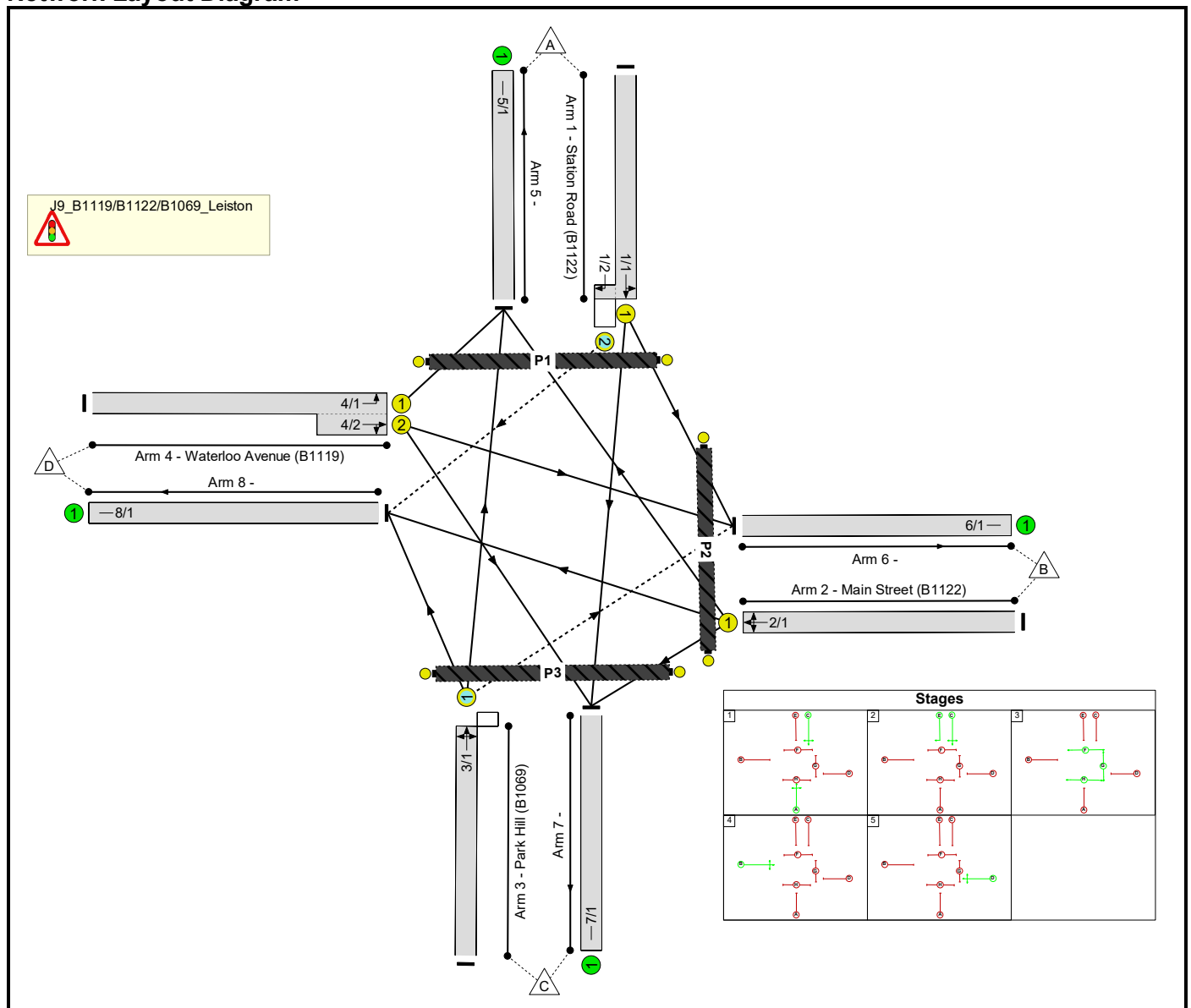


Full Input Data And Results  
**Full Input Data And Results**

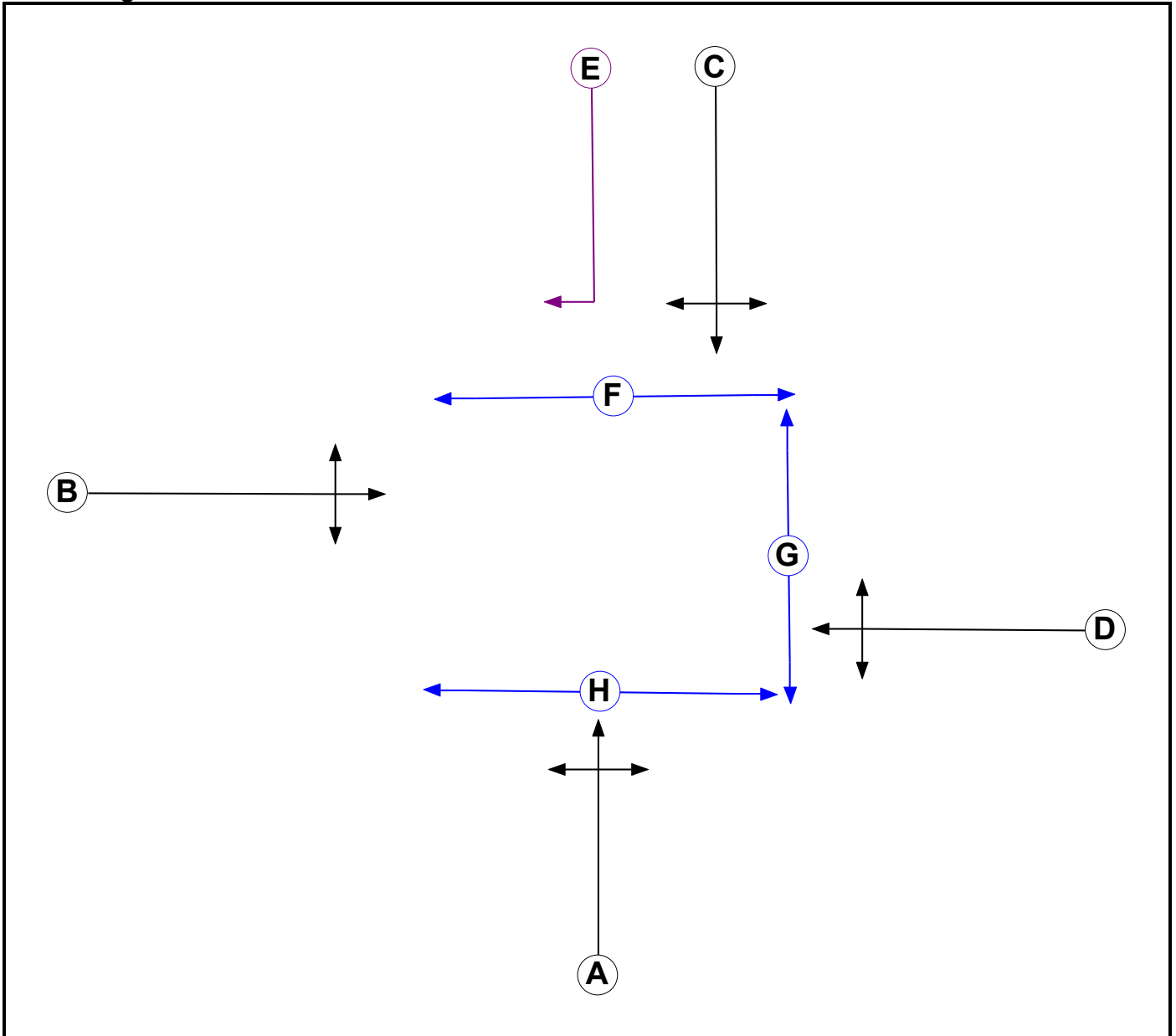
**User and Project Details**

<b>Project:</b>	<b>Sizewell C Transport Planning</b>
<b>Title:</b>	<b>Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>
<b>Location:</b>	Leiston, Suffolk
<b>Additional detail:</b>	
<b>File name:</b>	J9_FY_Model_Optimised v17.lsg3x
<b>Author:</b>	
<b>Company:</b>	WSP UK
<b>Address:</b>	62-64 Hills Road, Cambridge

**Network Layout Diagram**



**Phase Diagram**



**Phase Input Data**

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Ind. Arrow	C	4	4
F	Pedestrian		9	9
G	Pedestrian		9	9
H	Pedestrian		5	5

Full Input Data And Results

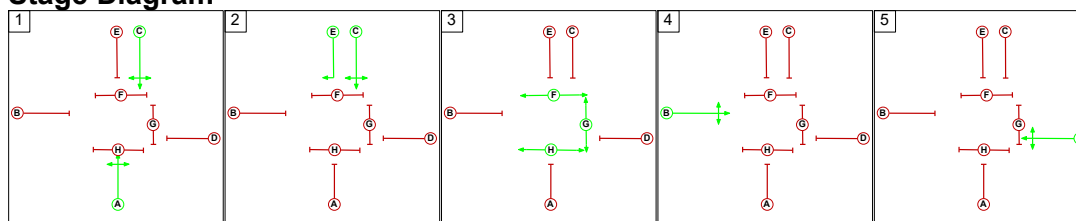
**Phase Intergrens Matrix**

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		8	-	6	4	9	7	5
	B	5		6	8	6	6	8	9
	C	-	5		7	-	5	9	9
	D	6	8	7		7	9	5	7
	E	8	5	-	7		5	-	-
	F	7	10	11	8	11		-	-
	G	9	8	9	11	-	-		-
	H	7	3	3	6	-	-	-	

**Phases in Stage**

Stage No.	Phases in Stage
1	A C
2	C E
3	F G H
4	B
5	D

**Stage Diagram**



**Phase Delays**

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

**Prohibited Stage Change**

		To Stage				
		1	2	3	4	5
From Stage	1		4	9	8	7
	2	8		9	5	7
	3	11	11		10	11
	4	6	6	9		8
	5	7	7	9	8	

Full Input Data And Results

**Give-Way Lane Input Data**

Junction: J9_B1119/B1122/B1069_Leiston											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (Station Road (B1122))	8/1 (Right)	1439	0	3/1	1.09	To 5/1 (Ahead) To 8/1 (Left)	2.00	-	0.50	2	2.00
3/1 (Park Hill (B1069))	6/1 (Right)	1439	0	1/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	1.00	1.00	0.50	1	2.00

Full Input Data And Results

**Lane Input Data**

Junction: J9_B1119/B1122/B1069_Leiston												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Station Road (B1122))	U	C	2	3	60.0	User	1800	-	-	-	-	-
1/2 (Station Road (B1122))	O	C E	2	3	1.0	User	1800	-	-	-	-	-
2/1 (Main Street (B1122))	U	D	2	3	60.0	User	1800	-	-	-	-	-
3/1 (Park Hill (B1069))	O	A	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	10.89
											Arm 8 Left	18.72
4/1 (Waterloo Avenue (B1119))	U	B	2	3	60.0	Geom	-	3.15	0.00	Y	Arm 5 Left	12.97
4/2 (Waterloo Avenue (B1119))	U	B	2	3	5.0	Geom	-	3.15	0.00	Y	Arm 6 Ahead	13.87
											Arm 7 Right	16.97
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-



Full Input Data And Results

**Traffic Flow Groups**

Flow Group	Start Time	End Time	Duration	Formula
1: '17BY_6-7AM'	06:00	07:00	01:00	
2: '17BY_7-8AM'	07:00	08:00	01:00	
3: '17BY_8-9AM'	08:00	09:00	01:00	
4: '17BY_3-4PM'	15:00	16:00	01:00	
5: '17BY_5-6PM'	17:00	18:00	01:00	
6: '23RC_6-7AM'	06:00	07:00	01:00	
7: '23RC_7-8AM'	07:00	08:00	01:00	
8: '23RC_8-9AM'	08:00	09:00	01:00	
9: '23RC_3-4PM'	15:00	16:00	01:00	
10: '23RC_5-6PM'	17:00	18:00	01:00	
11: '23EY_6-7AM'	06:00	07:00	01:00	
12: '23EY_7-8AM'	07:00	08:00	01:00	
13: '23EY_8-9AM'	08:00	09:00	01:00	
14: '23EY_3-4PM'	15:00	16:00	01:00	
15: '23EY_5-6PM'	17:00	18:00	01:00	
16: '28RC_6-7AM'	06:00	07:00	01:00	
17: '28RC_7-8AM'	07:00	08:00	01:00	
18: '28RC_8-9AM'	08:00	09:00	01:00	
19: '28RC_3-4PM'	15:00	16:00	01:00	
20: '28RC_5-6PM'	17:00	18:00	01:00	
21: '28PC_6-7AM'	06:00	07:00	01:00	
22: '28PC_7-8AM'	07:00	08:00	01:00	
23: '28PC_8-9AM'	08:00	09:00	01:00	
24: '28PC_3-4PM'	15:00	16:00	01:00	
25: '28PC_5-6PM'	17:00	18:00	01:00	
26: '34RC_6-7AM'	06:00	07:00	01:00	
27: '34RC_7-8AM'	07:00	08:00	01:00	
28: '34RC_8-9AM'	08:00	09:00	01:00	
29: '34RC_3-4PM'	15:00	16:00	01:00	
30: '34RC_5-6PM'	17:00	18:00	01:00	
31: '34OP_6-7AM'	06:00	07:00	01:00	
32: '34OP_7-8AM'	07:00	08:00	01:00	
33: '34OP_8-9AM'	08:00	09:00	01:00	
34: '34OP_3-4PM'	15:00	16:00	01:00	
35: '34OP_5-6PM'	17:00	18:00	01:00	

Full Input Data And Results

**Scenario 1: 'Base Year 6-7AM'** (FG1: '17BY\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	21	44	6	71
	B	21	0	6	21	48
	C	46	7	0	23	76
	D	9	8	11	0	28
	Tot.	76	36	61	50	223

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 1: Base Year 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	71(In) 65(Out)
1/2 (short)	6
2/1	48
3/1	76
4/1 (with short)	28(In) 9(Out)
4/2 (short)	19
5/1	76
6/1	36
7/1	61
8/1	50

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	60.5 %	1799	1799
				Arm 6 Right	10.89	9.2 %		
				Arm 8 Left	18.72	30.3 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	42.1 %	1760	1760
				Arm 7 Right	16.97	57.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 2: 'Base Year 7-8AM'** (FG2: '17BY\_7-8AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	54	124	10	188	
B	52	0	30	50	132	
C	123	27	0	28	178	
D	19	41	28	0	88	
Tot.	194	122	182	88	586	

**Traffic Lane Flows**

Lane	Scenario 2: Base Year 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	188(In) 178(Out)
1/2 (short)	10
2/1	132
3/1	178
4/1 (with short)	88(In) 19(Out)
4/2 (short)	69
5/1	194
6/1	122
7/1	182
8/1	88

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	69.1 %	1805	1805
				Arm 6 Right	10.89	15.2 %		
				Arm 8 Left	18.72	15.7 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	59.4 %	1754	1754
				Arm 7 Right	16.97	40.6 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 3: 'Base Year 8-9AM'** (FG3: '17BY\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	113	145	18	276	
B	96	0	59	85	240	
C	164	37	0	46	247	
D	24	65	56	0	145	
Tot.	284	215	260	149	908	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 3: Base Year 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	276(In) 258(Out)
1/2 (short)	18
2/1	240
3/1	247
4/1 (with short)	145(In) 24(Out)
4/2 (short)	121
5/1	284
6/1	215
7/1	260
8/1	149

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	66.4 %	1801	1801
				Arm 6 Right	10.89	15.0 %		
				Arm 8 Left	18.72	18.6 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	53.7 %	1756	1756
				Arm 7 Right	16.97	46.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 4: 'Base Year 3-4PM'** (FG4: '17BY\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	119	162	36	317	
B	62	0	38	61	161	
C	174	53	0	57	284	
D	25	92	92	0	209	
Tot.	261	264	292	154	971	

**Traffic Lane Flows**

Lane	Scenario 4: Base Year 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	317(In) 281(Out)
1/2 (short)	36
2/1	161
3/1	284
4/1 (with short)	209(In) 25(Out)
4/2 (short)	184
5/1	261
6/1	264
7/1	292
8/1	154

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.3 %	1790	1790
				Arm 6 Right	10.89	18.7 %		
				Arm 8 Left	18.72	20.1 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	50.0 %	1757	1757
				Arm 7 Right	16.97	50.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 5: 'Base Year 5-6PM'** (FG5: '17BY\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	92	98	40	230	
B	84	0	31	77	192	
C	147	31	0	59	237	
D	24	84	72	0	180	
Tot.	255	207	201	176	839	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 5: Base Year 5-6PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	230(In) 190(Out)
1/2 (short)	40
2/1	192
3/1	237
4/1 (with short)	180(In) 24(Out)
4/2 (short)	156
5/1	255
6/1	207
7/1	201
8/1	176

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	62.0 %	1797	1797
				Arm 6 Right	10.89	13.1 %		
				Arm 8 Left	18.72	24.9 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	53.8 %	1756	1756
				Arm 7 Right	16.97	46.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 6: '2023 Reference Case 6-7AM'** (FG6: '23RC\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	23	45	8	76	
B	19	0	6	37	62	
C	50	8	0	24	82	
D	10	63	12	0	85	
Tot.	79	94	63	69	305	

**Traffic Lane Flows**

Lane	Scenario 6: 2023 Reference Case 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	76(In) 68(Out)
1/2 (short)	8
2/1	62
3/1	82
4/1 (with short)	85(In) 10(Out)
4/2 (short)	75
5/1	79
6/1	94
7/1	63
8/1	69

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.0 %	1799	1799
				Arm 6 Right	10.89	9.8 %		
				Arm 8 Left	18.72	29.3 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	84.0 %	1747	1747
				Arm 7 Right	16.97	16.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

**Scenario 7: '2023 Reference Case 7-8AM' (FG7: '23RC\_7-8AM', Plan 1: '5 Stage Plan')**

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	53	128	12	193
	B	46	0	31	82	159
	C	135	31	0	33	199
	D	24	63	31	0	118
	Tot.	205	147	190	127	669

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 7: 2023 Reference Case 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	193(In) 181(Out)
1/2 (short)	12
2/1	159
3/1	199
4/1 (with short)	118(In) 24(Out)
4/2 (short)	94
5/1	205
6/1	147
7/1	190
8/1	127

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	67.8 %	1802	1802
				Arm 6 Right	10.89	15.6 %		
				Arm 8 Left	18.72	16.6 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	67.0 %	1752	1752
				Arm 7 Right	16.97	33.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 8: '2023 Reference Case 8-9AM'** (FG8: '23RC\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	117	193	20	330	
B	85	0	60	138	283	
C	177	40	0	64	281	
D	32	103	62	0	197	
Tot.	294	260	315	222	1091	

**Traffic Lane Flows**

Lane	Scenario 8: 2023 Reference Case 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	330(In) 310(Out)
1/2 (short)	20
2/1	283
3/1	281
4/1 (with short)	197(In) 32(Out)
4/2 (short)	165
5/1	294
6/1	260
7/1	315
8/1	222

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	63.0 %	1797	1797
				Arm 6 Right	10.89	14.2 %		
				Arm 8 Left	18.72	22.8 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	62.4 %	1753	1753
				Arm 7 Right	16.97	37.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

**Scenario 9: '2023 Reference Case 3-4PM' (FG9: '23RC\_3-4PM', Plan 1: '5 Stage Plan')**

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	121	179	45	345
	B	66	0	40	85	191
	C	189	56	0	65	310
	D	31	119	99	0	249
	Tot.	286	296	318	195	1095

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 9: 2023 Reference Case 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	345(In) 300(Out)
1/2 (short)	45
2/1	191
3/1	310
4/1 (with short)	249(In) 31(Out)
4/2 (short)	218
5/1	286
6/1	296
7/1	318
8/1	195

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.0 %	1790	1790
				Arm 6 Right	10.89	18.1 %		
				Arm 8 Left	18.72	21.0 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	54.6 %	1756	1756
				Arm 7 Right	16.97	45.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 10: '2023 Reference Case 5-6PM'** (FG10: '23RC\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	87	101	48	236	
B	94	0	32	97	223	
C	169	33	0	92	294	
D	30	115	77	0	222	
Tot.	293	235	210	237	975	

**Traffic Lane Flows**

Lane	Scenario 10: 2023 Reference Case 5-6PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	236(In) 188(Out)
1/2 (short)	48
2/1	223
3/1	294
4/1 (with short)	222(In) 30(Out)
4/2 (short)	192
5/1	293
6/1	235
7/1	210
8/1	237



**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	57.5 %	1792	1792
				Arm 6 Right	10.89	11.2 %		
				Arm 8 Left	18.72	31.3 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	59.9 %	1754	1754
				Arm 7 Right	16.97	40.1 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 11: '2023 Early Years 6-7AM'** (FG11: '23EY\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	23	50	15	88
	B	8	0	6	9	23
	C	68	8	0	54	130
	D	38	68	12	0	118
	Tot.	114	99	68	78	359

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 11: 2023 Early Years 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	88(In) 73(Out)
1/2 (short)	15
2/1	23
3/1	130
4/1 (with short)	118(In) 38(Out)
4/2 (short)	80
5/1	114
6/1	99
7/1	68
8/1	78

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	52.3 %	1790	1790
				Arm 6 Right	10.89	6.2 %		
				Arm 8 Left	18.72	41.5 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	85.0 %	1746	1746
				Arm 7 Right	16.97	15.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 12: '2023 Early Years 7-8AM'** (FG12: '23EY\_7-8AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	55	133	37	225	
B	16	0	31	22	69	
C	182	31	0	100	313	
D	62	76	32	0	170	
Tot.	260	162	196	159	777	

**Traffic Lane Flows**

Lane	Scenario 12: 2023 Early Years 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	225(In) 188(Out)
1/2 (short)	37
2/1	69
3/1	313
4/1 (with short)	170(In) 62(Out)
4/2 (short)	108
5/1	260
6/1	162
7/1	196
8/1	159

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	58.1 %	1795	1795
				Arm 6 Right	10.89	9.9 %		
				Arm 8 Left	18.72	31.9 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	70.4 %	1751	1751
				Arm 7 Right	16.97	29.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

**Scenario 13: '2023 Early Years 8-9AM'** (FG13: '23EY\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	118	194	29	341	
B	50	0	60	46	156	
C	214	40	0	158	412	
D	41	103	62	0	206	
Tot.	305	261	316	233	1115	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 13: 2023 Early Years 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	341(In) 312(Out)
1/2 (short)	29
2/1	156
3/1	412
4/1 (with short)	206(In) 41(Out)
4/2 (short)	165
5/1	305
6/1	261
7/1	316
8/1	233

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	51.9 %	1786	1786
				Arm 6 Right	10.89	9.7 %		
				Arm 8 Left	18.72	38.3 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	62.4 %	1753	1753
				Arm 7 Right	16.97	37.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 14: '2023 Early Years 3-4PM'** (FG14: '23EY\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	122	181	56	359	
B	46	0	40	20	106	
C	205	56	0	130	391	
D	41	119	100	0	260	
Tot.	292	297	321	206	1116	

**Traffic Lane Flows**

Lane	Scenario 14: 2023 Early Years 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	359(In) 303(Out)
1/2 (short)	56
2/1	106
3/1	391
4/1 (with short)	260(In) 41(Out)
4/2 (short)	219
5/1	292
6/1	297
7/1	321
8/1	206

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	52.4 %	1782	1782
				Arm 6 Right	10.89	14.3 %		
				Arm 8 Left	18.72	33.2 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	54.3 %	1756	1756
				Arm 7 Right	16.97	45.7 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 15: '2023 Early Years 5-6PM'** (FG15: '23EY\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	93	115	93	301
	B	54	0	32	49	135
	C	225	33	0	140	398
	D	37	121	83	0	241
	Tot.	316	247	230	282	1075

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 15: 2023 Early Years 5-6PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	301(In) 208(Out)
1/2 (short)	93
2/1	135
3/1	398
4/1 (with short)	241(In) 37(Out)
4/2 (short)	204
5/1	316
6/1	247
7/1	230
8/1	282

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	56.5 %	1794	1794
				Arm 6 Right	10.89	8.3 %		
				Arm 8 Left	18.72	35.2 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	59.3 %	1754	1754
				Arm 7 Right	16.97	40.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf



Full Input Data And Results

**Scenario 16: '2028 Reference Case 6-7AM'** (FG16: '28RC\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	23	47	9	79	
B	20	0	6	38	64	
C	52	8	0	25	85	
D	10	64	11	0	85	
Tot.	82	95	64	72	313	

**Traffic Lane Flows**

Lane	Scenario 16: 2028 Reference Case 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	79(In) 70(Out)
1/2 (short)	9
2/1	64
3/1	85
4/1 (with short)	85(In) 10(Out)
4/2 (short)	75
5/1	82
6/1	95
7/1	64
8/1	72

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.2 %	1799	1799
				Arm 6 Right	10.89	9.4 %		
				Arm 8 Left	18.72	29.4 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	85.3 %	1746	1746
				Arm 7 Right	16.97	14.7 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 17: '2028 Reference Case 7-8AM' (FG17: '28RC\_7-8AM', Plan 1: '5 Stage Plan')**

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	53	130	12	195	
B	46	0	32	89	167	
C	140	31	0	35	206	
D	26	71	27	0	124	
Tot.	212	155	189	136	692	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 17: 2028 Reference Case 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	195(In) 183(Out)
1/2 (short)	12
2/1	167
3/1	206
4/1 (with short)	124(In) 26(Out)
4/2 (short)	98
5/1	212
6/1	155
7/1	189
8/1	136

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	68.0 %	1803	1803
				Arm 6 Right	10.89	15.0 %		
				Arm 8 Left	18.72	17.0 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	72.4 %	1750	1750
				Arm 7 Right	16.97	27.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 18: '2028 Reference Case 8-9AM'** (FG18: '28RC\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	118	196	21	335	
B	77	0	61	161	299	
C	188	42	0	72	302	
D	37	114	64	0	215	
Tot.	302	274	321	254	1151	

**Traffic Lane Flows**

Lane	Scenario 18: 2028 Reference Case 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	335(In) 314(Out)
1/2 (short)	21
2/1	299
3/1	302
4/1 (with short)	215(In) 37(Out)
4/2 (short)	178
5/1	302
6/1	274
7/1	321
8/1	254

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	62.3 %	1796	1796
				Arm 6 Right	10.89	13.9 %		
				Arm 8 Left	18.72	23.8 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	64.0 %	1753	1753
				Arm 7 Right	16.97	36.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

**Scenario 19: '2028 Reference Case 3-4PM'** (FG19: '28RC\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	122	189	49	360	
B	63	0	40	97	200	
C	197	58	0	70	325	
D	34	132	103	0	269	
Tot.	294	312	332	216	1154	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 19: 2028 Reference Case 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	360(In) 311(Out)
1/2 (short)	49
2/1	200
3/1	325
4/1 (with short)	269(In) 34(Out)
4/2 (short)	235
5/1	294
6/1	312
7/1	332
8/1	216

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	60.6 %	1790	1790
				Arm 6 Right	10.89	17.8 %		
				Arm 8 Left	18.72	21.5 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	56.2 %	1755	1755
				Arm 7 Right	16.97	43.8 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 20: '2028 Reference Case 5-6PM'** (FG20: '28RC\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	88	106	52	246	
B	94	0	32	102	228	
C	176	34	0	98	308	
D	32	126	79	0	237	
Tot.	302	248	217	252	1019	

**Traffic Lane Flows**

Lane	Scenario 20: 2028 Reference Case 5-6PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	246(In) 194(Out)
1/2 (short)	52
2/1	228
3/1	308
4/1 (with short)	237(In) 32(Out)
4/2 (short)	205
5/1	302
6/1	248
7/1	217
8/1	252

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	57.1 %	1792	1792
				Arm 6 Right	10.89	11.0 %		
				Arm 8 Left	18.72	31.8 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	61.5 %	1754	1754
				Arm 7 Right	16.97	38.5 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 21: '2028 Peak Construction 6-7AM'** (FG21: '28PC\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	43	70	12	125	
B	21	0	6	33	60	
C	259	8	0	25	292	
D	53	44	12	0	109	
Tot.	333	95	88	70	586	



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 21: 2028 Peak Construction 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	125(In) 113(Out)
1/2 (short)	12
2/1	60
3/1	292
4/1 (with short)	109(In) 53(Out)
4/2 (short)	56
5/1	333
6/1	95
7/1	88
8/1	70

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	88.7 %	1845	1845
				Arm 6 Right	10.89	2.7 %		
				Arm 8 Left	18.72	8.6 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	78.6 %	1748	1748
				Arm 7 Right	16.97	21.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 22: '2028 Peak Construction 7-8AM'** (FG22: '28PC\_7-8AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	71	162	19	252	
B	48	0	32	82	162	
C	369	31	0	35	435	
D	75	67	35	0	177	
Tot.	492	169	229	136	1026	

**Traffic Lane Flows**

Lane	Scenario 22: 2028 Peak Construction 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	252(In) 233(Out)
1/2 (short)	19
2/1	162
3/1	435
4/1 (with short)	177(In) 75(Out)
4/2 (short)	102
5/1	492
6/1	169
7/1	229
8/1	136

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	84.8 %	1835	1835
				Arm 6 Right	10.89	7.1 %		
				Arm 8 Left	18.72	8.0 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	65.7 %	1752	1752
				Arm 7 Right	16.97	34.3 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 23: '2028 Peak Construction 8-9AM'** (FG23: '28PC\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	121	209	28	358	
B	79	0	61	160	300	
C	252	42	0	72	366	
D	67	113	68	0	248	
Tot.	398	276	338	260	1272	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 23: 2028 Peak Construction 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	358(In) 330(Out)
1/2 (short)	28
2/1	300
3/1	366
4/1 (with short)	248(In) 67(Out)
4/2 (short)	181
5/1	398
6/1	276
7/1	338
8/1	260

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	68.9 %	1808	1808
				Arm 6 Right	10.89	11.5 %		
				Arm 8 Left	18.72	19.7 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	62.4 %	1753	1753
				Arm 7 Right	16.97	37.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 24: '2028 Peak Construction 3-4PM'** (FG24: '28PC\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	131	288	105	524	
B	65	0	41	89	195	
C	221	58	0	70	349	
D	62	129	104	0	295	
Tot.	348	318	433	264	1363	

**Traffic Lane Flows**

Lane	Scenario 24: 2028 Peak Construction 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	524(In) 419(Out)
1/2 (short)	105
2/1	195
3/1	349
4/1 (with short)	295(In) 62(Out)
4/2 (short)	233
5/1	348
6/1	318
7/1	433
8/1	264

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	63.3 %	1795	1795
				Arm 6 Right	10.89	16.6 %		
				Arm 8 Left	18.72	20.1 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	55.4 %	1756	1756
				Arm 7 Right	16.97	44.6 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 25: '2028 Peak Construction 5-6PM'** (FG25: '28PC\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	106	268	108	482	
B	54	0	33	51	138	
C	253	35	0	135	423	
D	48	123	81	0	252	
Tot.	355	264	382	294	1295	

Full Input Data And Results

**Traffic Lane Flows**

Scenario 25: 2028 Peak Construction 5-6PM	
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	482(In) 374(Out)
1/2 (short)	108
2/1	138
3/1	423
4/1 (with short)	252(In) 48(Out)
4/2 (short)	204
5/1	355
6/1	264
7/1	382
8/1	294

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	59.8 %	1799	1799
				Arm 6 Right	10.89	8.3 %		
				Arm 8 Left	18.72	31.9 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	60.3 %	1754	1754
				Arm 7 Right	16.97	39.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 26: '2034 Reference Case 6-7AM'** (FG26: '34RC\_6-7AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	24	51	9	84	
B	20	0	8	40	68	
C	55	8	0	26	89	
D	11	64	11	0	86	
Tot.	86	96	70	75	327	

**Traffic Lane Flows**

Lane	Scenario 26: 2034 Reference Case 6-7AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	84(In) 75(Out)
1/2 (short)	9
2/1	68
3/1	89
4/1 (with short)	86(In) 11(Out)
4/2 (short)	75
5/1	86
6/1	96
7/1	70
8/1	75



**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.8 %	1801	1801
				Arm 6 Right	10.89	9.0 %		
				Arm 8 Left	18.72	29.2 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	85.3 %	1746	1746
				Arm 7 Right	16.97	14.7 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 27: '2034 Reference Case 7-8AM' (FG27: '34RC\_7-8AM', Plan 1: '5 Stage Plan')**

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	55	134	14	203	
B	47	0	33	97	177	
C	150	31	0	37	218	
D	29	81	28	0	138	
Tot.	226	167	195	148	736	

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 27: 2034 Reference Case 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	203(In) 189(Out)
1/2 (short)	14
2/1	177
3/1	218
4/1 (with short)	138(In) 29(Out)
4/2 (short)	109
5/1	226
6/1	167
7/1	195
8/1	148

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	68.8 %	1805	1805
				Arm 6 Right	10.89	14.2 %		
				Arm 8 Left	18.72	17.0 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	74.3 %	1750	1750
				Arm 7 Right	16.97	25.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 28: '2034 Reference Case 8-9AM'** (FG28: '34RC\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	119	167	22	308	
B	78	0	62	196	336	
C	199	44	0	79	322	
D	41	118	67	0	226	
Tot.	318	281	296	297	1192	

**Traffic Lane Flows**

Lane	Scenario 28: 2034 Reference Case 8-9AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	308(In) 286(Out)
1/2 (short)	22
2/1	336
3/1	322
4/1 (with short)	226(In) 41(Out)
4/2 (short)	185
5/1	318
6/1	281
7/1	296
8/1	297

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.8 %	1796	1796
				Arm 6 Right	10.89	13.7 %		
				Arm 8 Left	18.72	24.5 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	63.8 %	1753	1753
				Arm 7 Right	16.97	36.2 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 29: '2034 Reference Case 3-4PM'** (FG29: '34RC\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	121	202	54	377
	B	65	0	41	111	217
	C	207	60	0	74	341
	D	65	126	107	0	298
	Tot.	337	307	350	239	1233

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 29: 2034 Reference Case 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	377(In) 323(Out)
1/2 (short)	54
2/1	217
3/1	341
4/1 (with short)	298(In) 65(Out)
4/2 (short)	233
5/1	337
6/1	307
7/1	350
8/1	239

**Lane Saturation Flows**

<b>Junction: J9_B1119/B1122/B1069_Leiston</b>								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	60.7 %	1790	1790
				Arm 6 Right	10.89	17.6 %		
				Arm 8 Left	18.72	21.7 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	54.1 %	1756	1756
				Arm 7 Right	16.97	45.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 30: '2034 Reference Case 5-6PM'** (FG30: '34RC\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	89	112	56	257	
B	90	0	33	98	221	
C	149	35	0	109	293	
D	36	138	81	0	255	
Tot.	275	262	226	263	1026	

**Traffic Lane Flows**

Lane	Scenario 30: 2034 Reference Case 5-6PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	257(In) 201(Out)
1/2 (short)	56
2/1	221
3/1	293
4/1 (with short)	255(In) 36(Out)
4/2 (short)	219
5/1	275
6/1	262
7/1	226
8/1	263

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	50.9 %	1783	1783
				Arm 6 Right	10.89	11.9 %		
				Arm 8 Left	18.72	37.2 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	63.0 %	1753	1753
				Arm 7 Right	16.97	37.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 31: '2034 Operational Led 6-7AM' (FG31: '34OP\_6-7AM', Plan 1: '5 Stage Plan')**

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
A	0	21	52	8	81	
B	20	0	8	33	61	
C	56	8	0	25	89	
D	14	41	12	0	67	
Tot.	90	70	72	66	298	

Full Input Data And Results

**Traffic Lane Flows**

Scenario 31: 2034 Operational Led 6-7AM	
Junction: J9_B1119/B1122/B1069_Leiston	
1/1 (with short)	81(In) 73(Out)
1/2 (short)	8
2/1	61
3/1	89
4/1 (with short)	67(In) 14(Out)
4/2 (short)	53
5/1	90
6/1	70
7/1	72
8/1	66

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	62.9 %	1802	1802
				Arm 6 Right	10.89	9.0 %		
				Arm 8 Left	18.72	28.1 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	77.4 %	1749	1749
				Arm 7 Right	16.97	22.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf



Full Input Data And Results

**Scenario 32: '2034 Operational Led 7-8AM'** (FG32: '34OP\_7-8AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	55	134	12	201	
B	47	0	33	89	169	
C	256	31	0	37	324	
D	43	70	36	0	149	
Tot.	346	156	203	138	843	

**Traffic Lane Flows**

Lane	Scenario 32: 2034 Operational Led 7-8AM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	201(In) 189(Out)
1/2 (short)	12
2/1	169
3/1	324
4/1 (with short)	149(In) 43(Out)
4/2 (short)	106
5/1	346
6/1	156
7/1	203
8/1	138

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	79.0 %	1824	1824
				Arm 6 Right	10.89	9.6 %		
				Arm 8 Left	18.72	11.4 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	66.0 %	1752	1752
				Arm 7 Right	16.97	34.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 33: '2034 Operational Led 8-9AM'** (FG33: '34OP\_8-9AM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	119	185	26	330
	B	82	0	62	194	338
	C	395	43	0	75	513
	D	183	107	67	0	357
	Tot.	660	269	314	295	1538

Full Input Data And Results

**Traffic Lane Flows**

Scenario 33: 2034 Operational Led 8-9AM	
Junction: J9_B1119/B1122/B1069_Leiston	
1/1 (with short)	330(In) 304(Out)
1/2 (short)	26
2/1	338
3/1	513
4/1 (with short)	357(In) 183(Out)
4/2 (short)	174
5/1	660
6/1	269
7/1	314
8/1	295

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	77.0 %	1823	1823
				Arm 6 Right	10.89	8.4 %		
				Arm 8 Left	18.72	14.6 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	61.5 %	1754	1754
				Arm 7 Right	16.97	38.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 34: '2034 Operational Led 3-4PM'** (FG34: '34OP\_3-4PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	119	207	52	378	
B	65	0	41	103	209	
C	210	60	0	74	344	
D	35	145	108	0	288	
Tot.	310	324	356	229	1219	

**Traffic Lane Flows**

Lane	Scenario 34: 2034 Operational Led 3-4PM
<b>Junction: J9_B1119/B1122/B1069_Leiston</b>	
1/1 (with short)	378(In) 326(Out)
1/2 (short)	52
2/1	209
3/1	344
4/1 (with short)	288(In) 35(Out)
4/2 (short)	253
5/1	310
6/1	324
7/1	356
8/1	229

**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
1/2 (Station Road (B1122) Lane 2)				This lane uses a directly entered Saturation Flow			1800	1800
2/1 (Main Street (B1122) Lane 1)				This lane uses a directly entered Saturation Flow			1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	61.0 %	1791	1791
				Arm 6 Right	10.89	17.4 %		
				Arm 8 Left	18.72	21.5 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	57.3 %	1755	1755
				Arm 7 Right	16.97	42.7 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

**Scenario 35: '2034 Operational Led 5-6PM'** (FG35: '34OP\_5-6PM', Plan 1: '5 Stage Plan')

**Traffic Flows, Desired**

**Desired Flow :**

Origin	Destination					
	A	B	C	D	Tot.	
A	0	89	113	58	260	
B	54	0	33	53	140	
C	189	35	0	135	359	
D	34	132	82	0	248	
Tot.	277	256	228	246	1007	

Full Input Data And Results

**Traffic Lane Flows**

Scenario 35: 2034 Operational Led 5-6PM	
Junction: J9_B1119/B1122/B1069_Leiston	
1/1 (with short)	260(In) 202(Out)
1/2 (short)	58
2/1	140
3/1	359
4/1 (with short)	248(In) 34(Out)
4/2 (short)	214
5/1	277
6/1	256
7/1	228
8/1	246

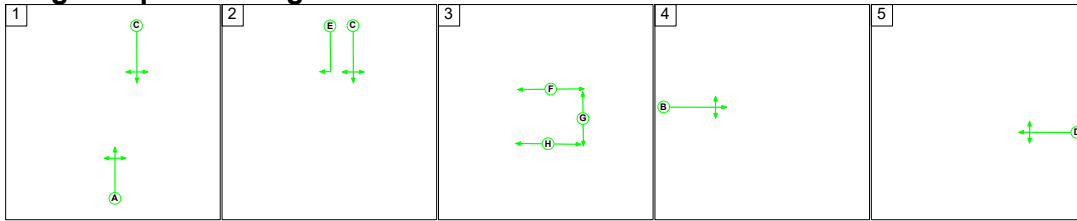
**Lane Saturation Flows**

Junction: J9_B1119/B1122/B1069_Leiston								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Station Road (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
1/2 (Station Road (B1122) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Main Street (B1122) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Park Hill (B1069))	2.50	0.00	Y	Arm 5 Ahead	Inf	52.6 %	1787	1787
				Arm 6 Right	10.89	9.7 %		
				Arm 8 Left	18.72	37.6 %		
4/1 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 5 Left	12.97	100.0 %	1730	1730
4/2 (Waterloo Avenue (B1119))	3.15	0.00	Y	Arm 6 Ahead	13.87	61.7 %	1754	1754
				Arm 7 Right	16.97	38.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Base Year 6-7AM' (FG1: '17BY\_6-7AM', Plan 1: '5 Stage Plan')

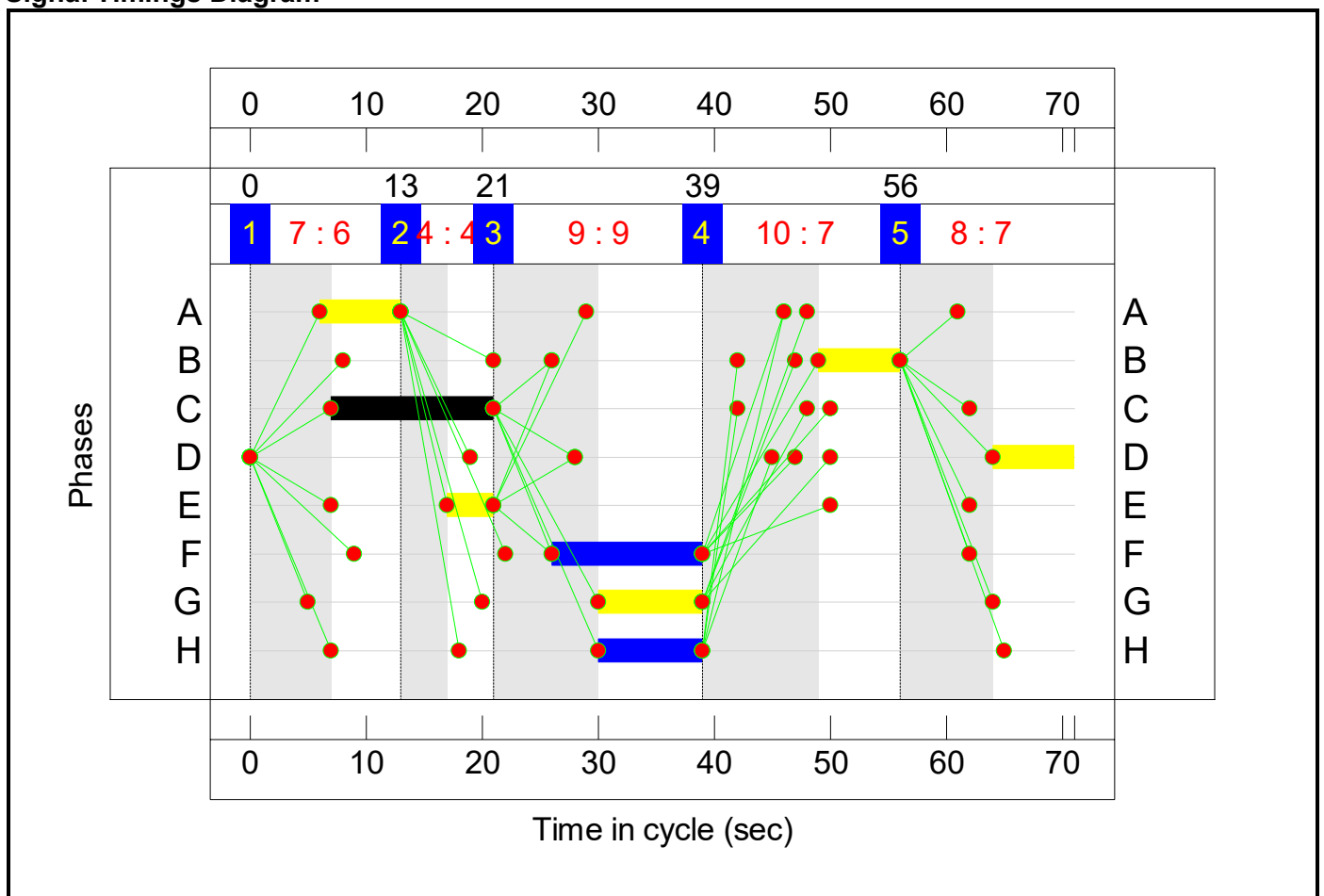
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

Signal Timings Diagram

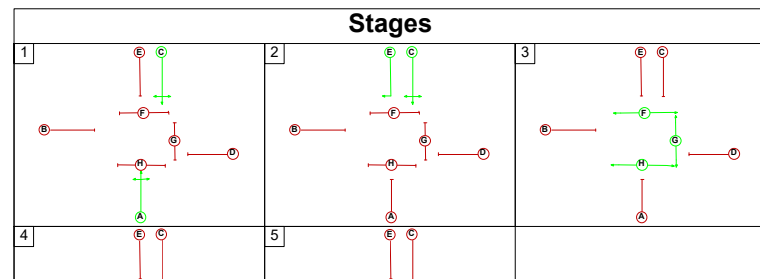
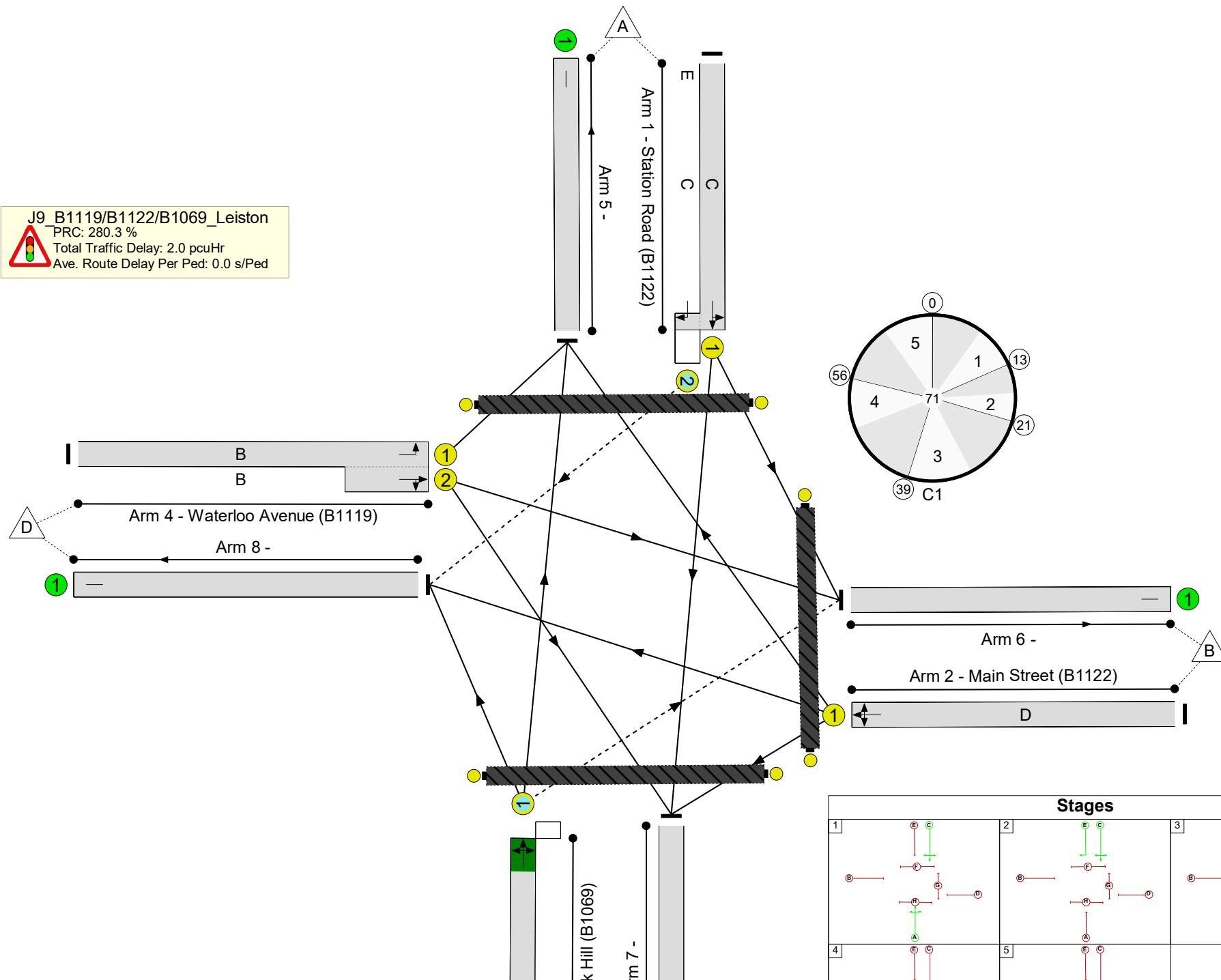


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 280.3 %  
 Total Traffic Delay: 2.0 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

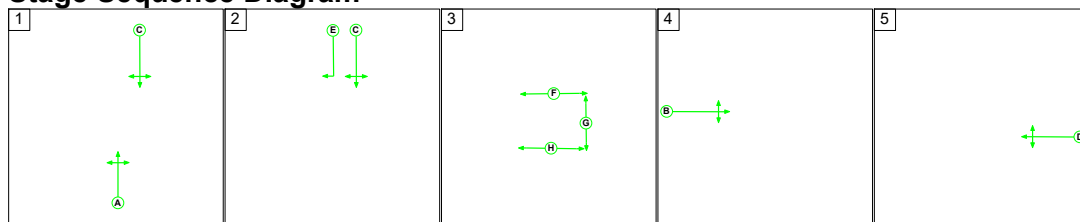
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	23.7%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	23.7%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	71	1800:1800	352+33	18.4 : 18.4%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	48	1800	203	23.7%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	76	1799	380	20.0%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	28	1730:1760	94+198	9.6 : 9.6%
5/1		U	N/A	N/A	-		-	-	-	76	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	36	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 2: 'Base Year 7-8AM' (FG2: '17BY\_7-8AM', Plan 1: '5 Stage Plan')

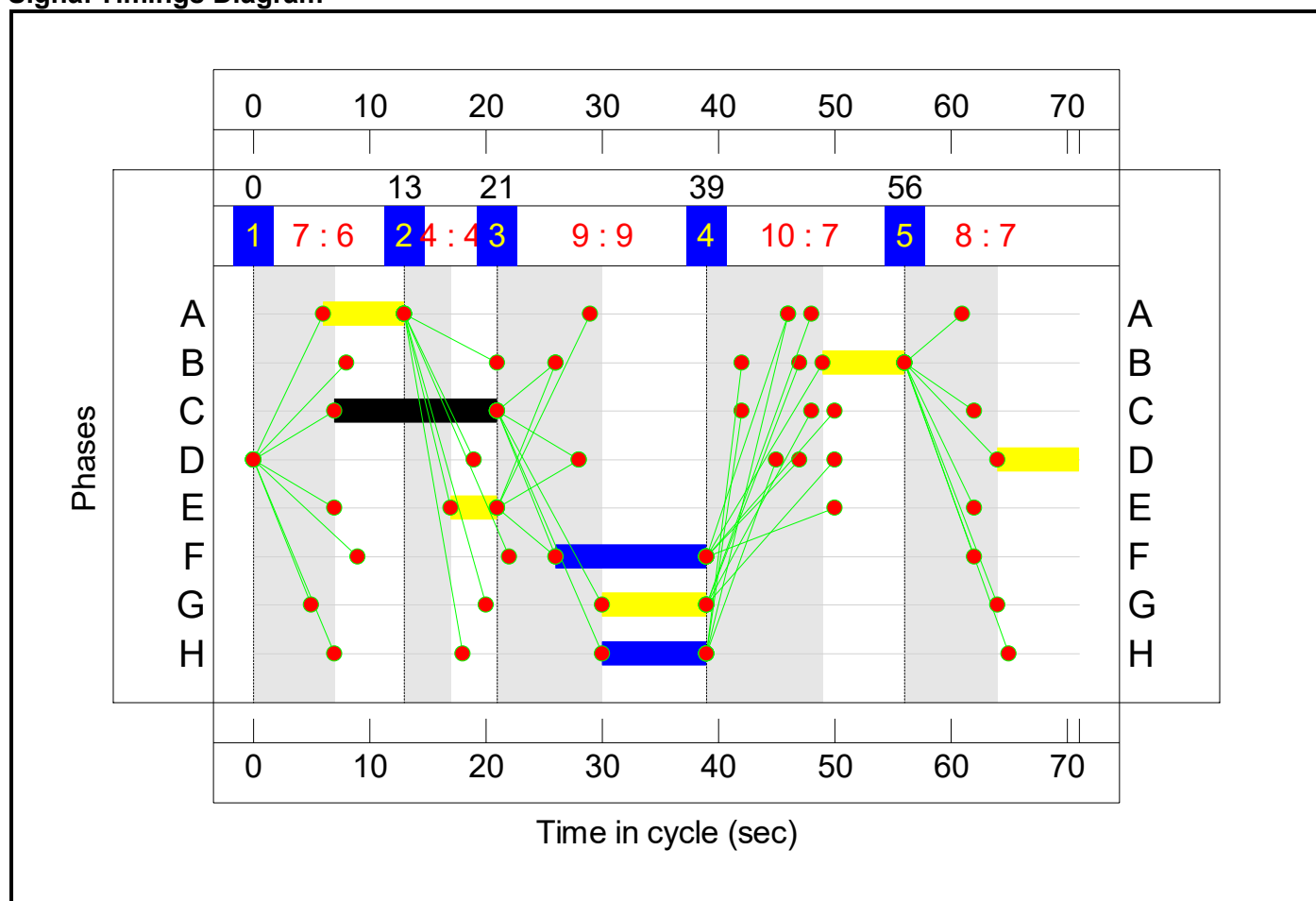
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

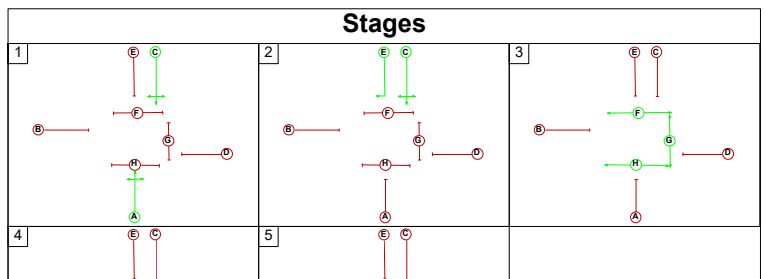
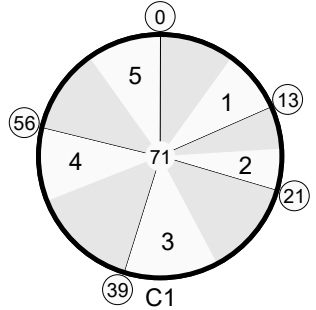
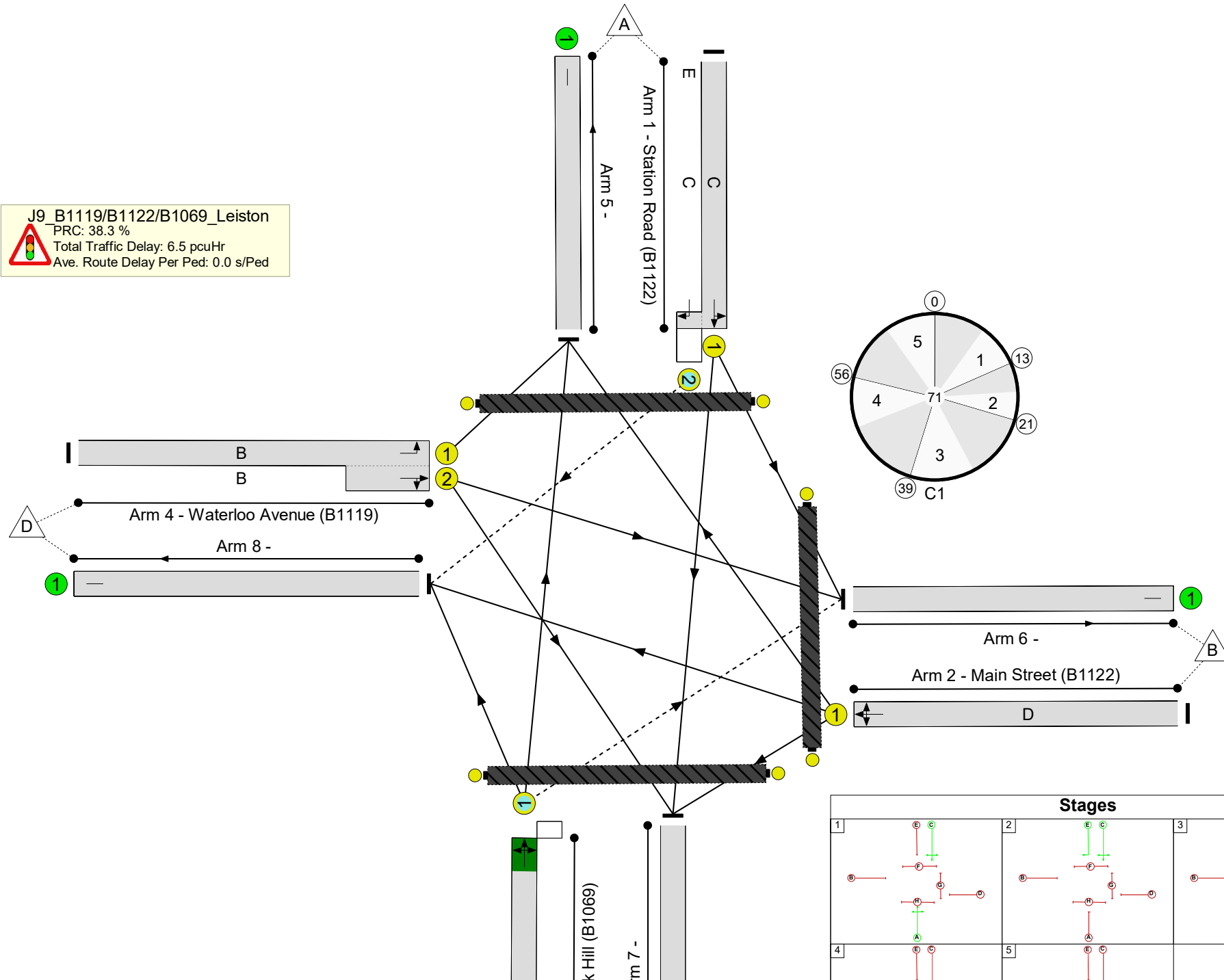
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 38.3 %  
 Total Traffic Delay: 6.5 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.1%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	65.1%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	188	1800:1800	363+20	49.1 : 49.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	132	1800	203	65.1%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	178	1805	379	47.0%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	88	1730:1754	54+198	34.9 : 34.9%
5/1		U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	122	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	182	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	88	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

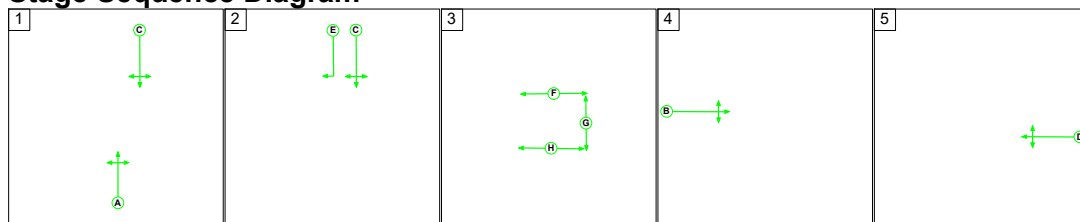




Full Input Data And Results

Scenario 3: 'Base Year 8-9AM' (FG3: '17BY\_8-9AM', Plan 1: '5 Stage Plan')

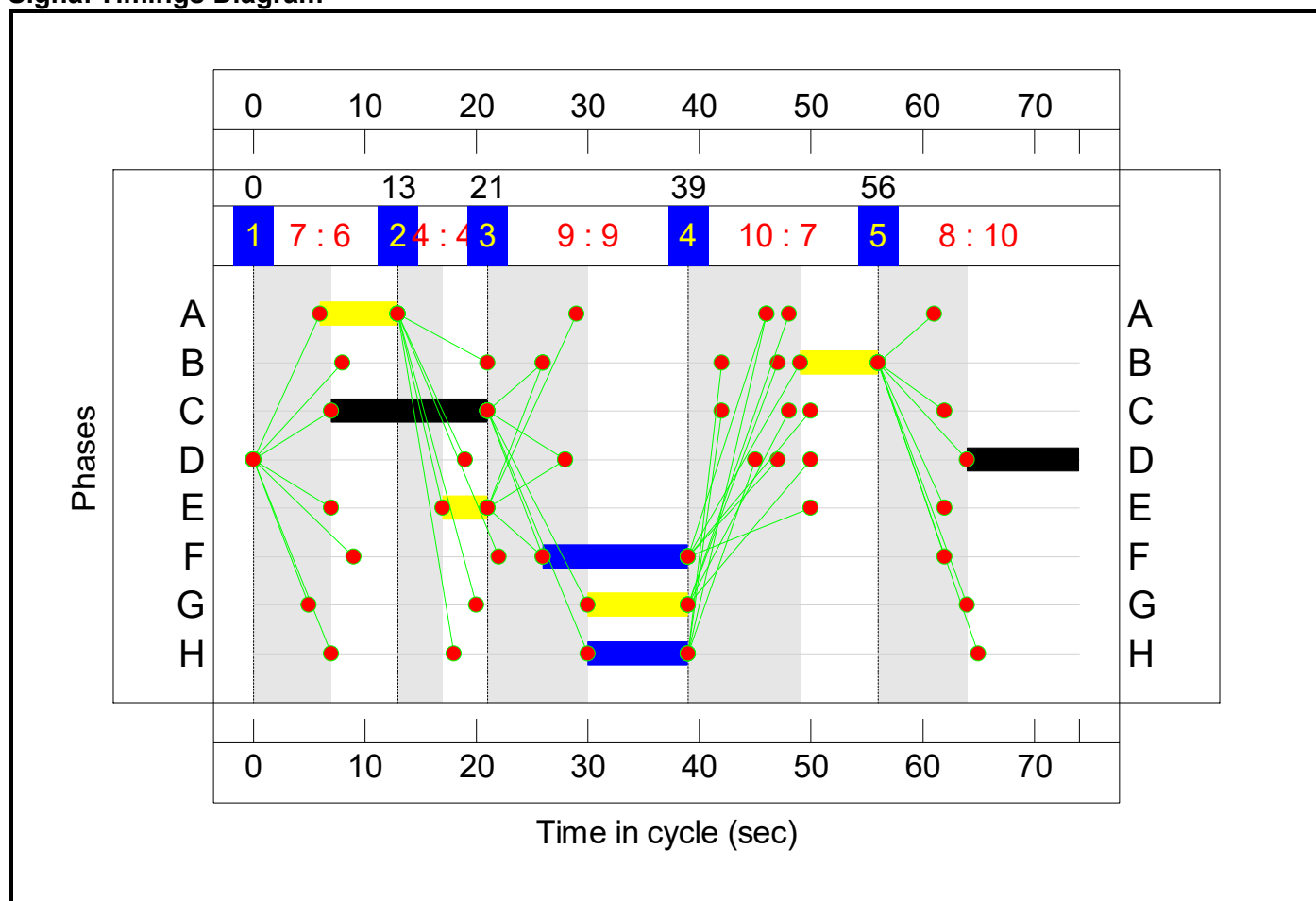
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	10
Change Point	0	13	21	39	56

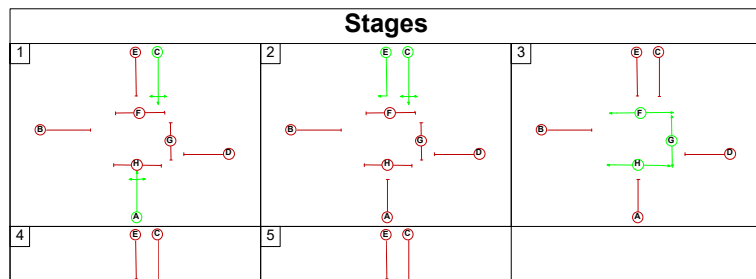
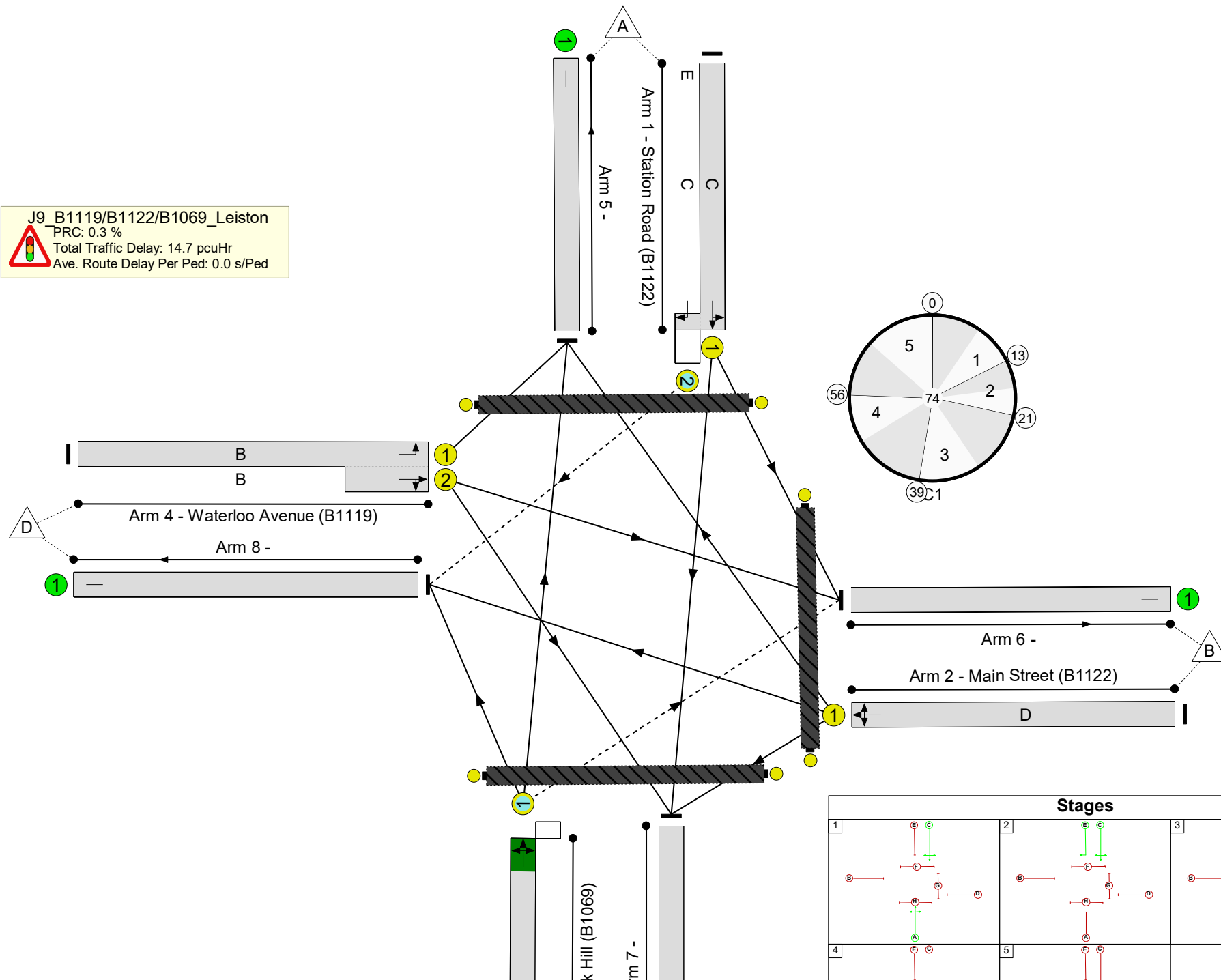
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 0.3 %  
 Total Traffic Delay: 14.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

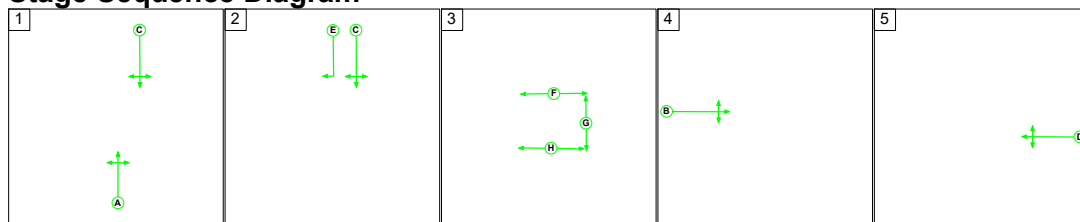
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	276	1800:1800	344+24	74.9 : 74.9%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	10	-	240	1800	268	89.7%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	247	1801	328	75.2%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	145	1730:1756	38+190	63.7 : 63.7%
5/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 4: 'Base Year 3-4PM' (FG4: '17BY\_3-4PM', Plan 1: '5 Stage Plan')

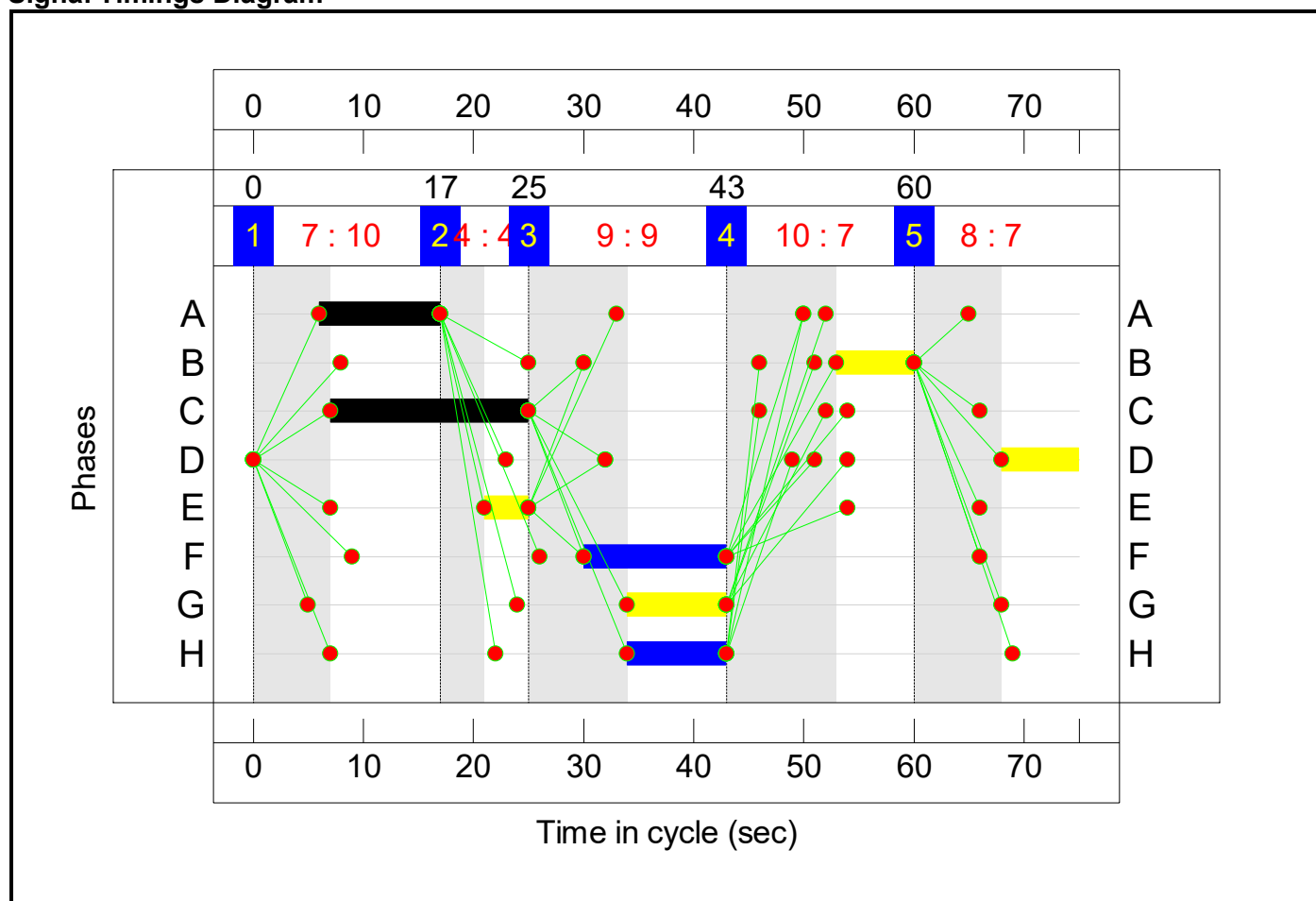
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	10	4	9	7	7
Change Point	0	17	25	43	60

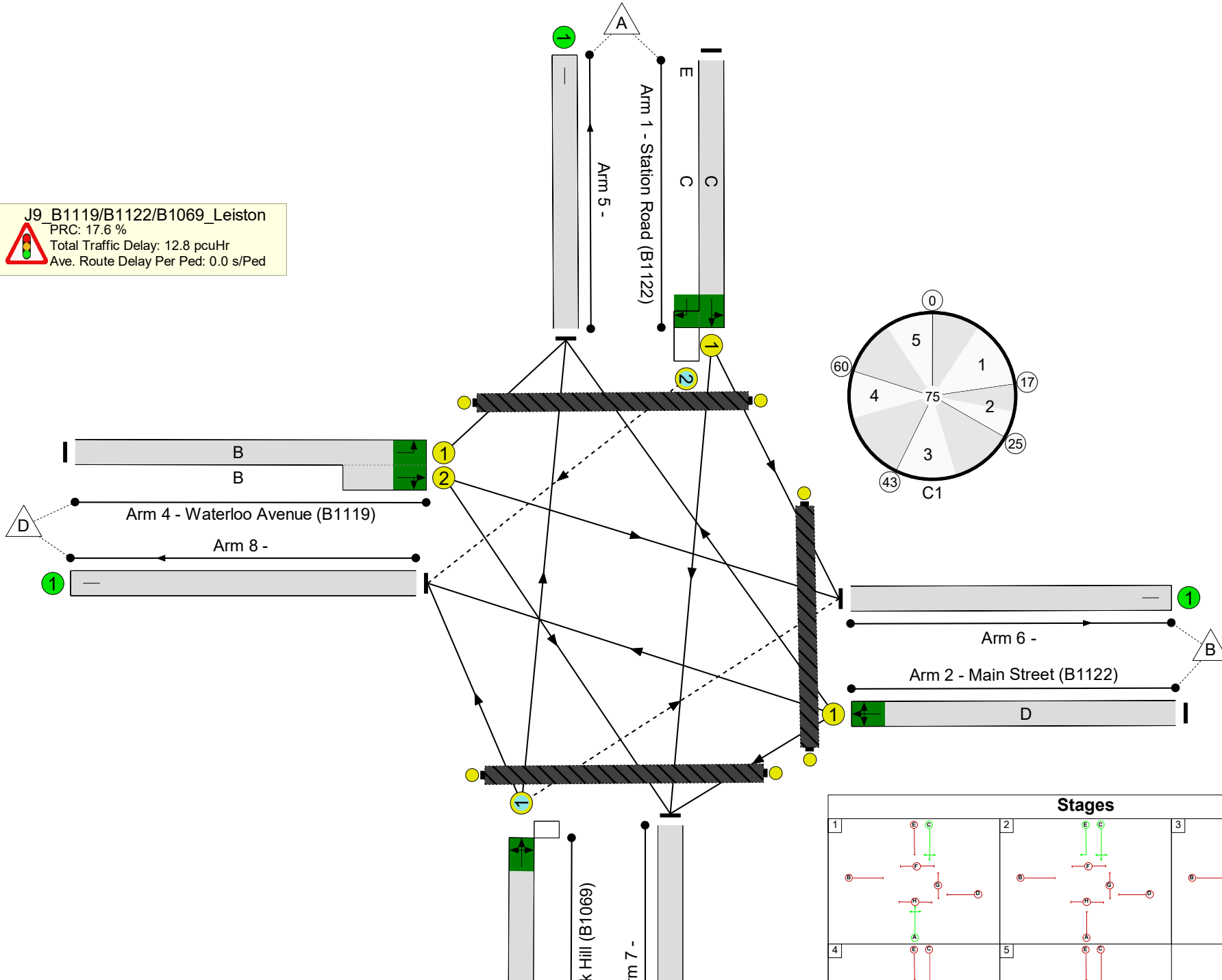
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 17.6 %  
 Total Traffic Delay: 12.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

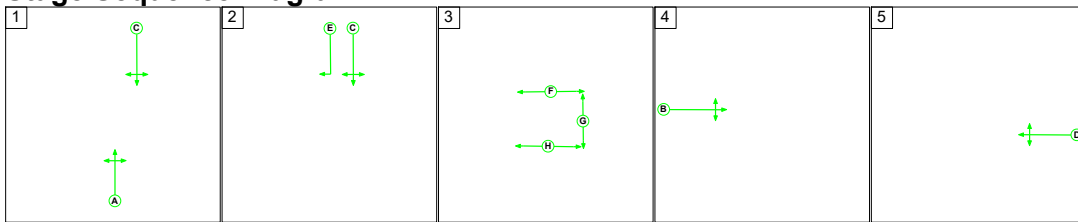
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	76.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	76.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	18	4	317	1800:1800	367+47	76.5 : 76.5%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	161	1800	240	67.1%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	11	-	284	1790	377	75.4%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	209	1730:1757	35+258	71.4 : 71.4%
5/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 5: 'Base Year 5-6PM' (FG5: '17BY\_5-6PM', Plan 1: '5 Stage Plan')

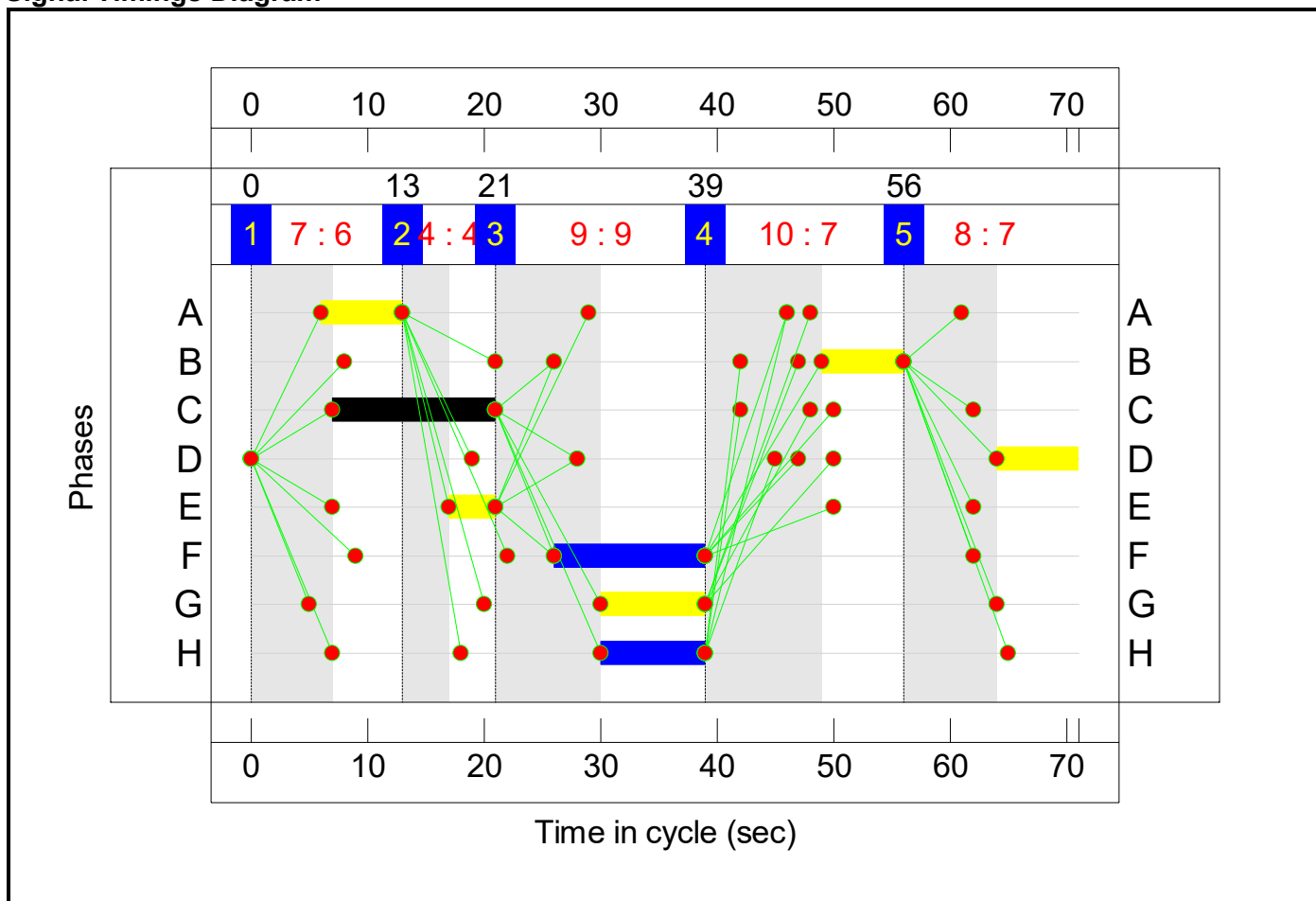
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

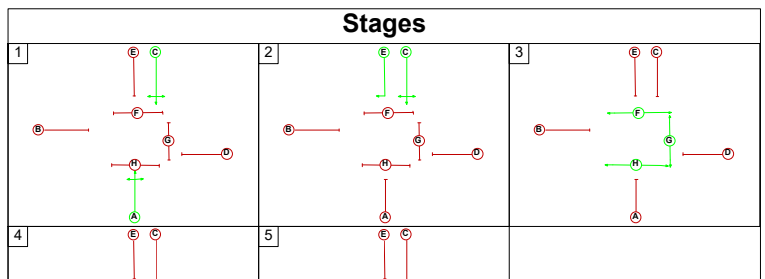
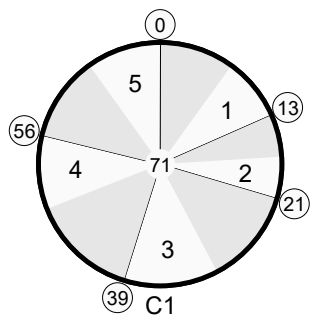
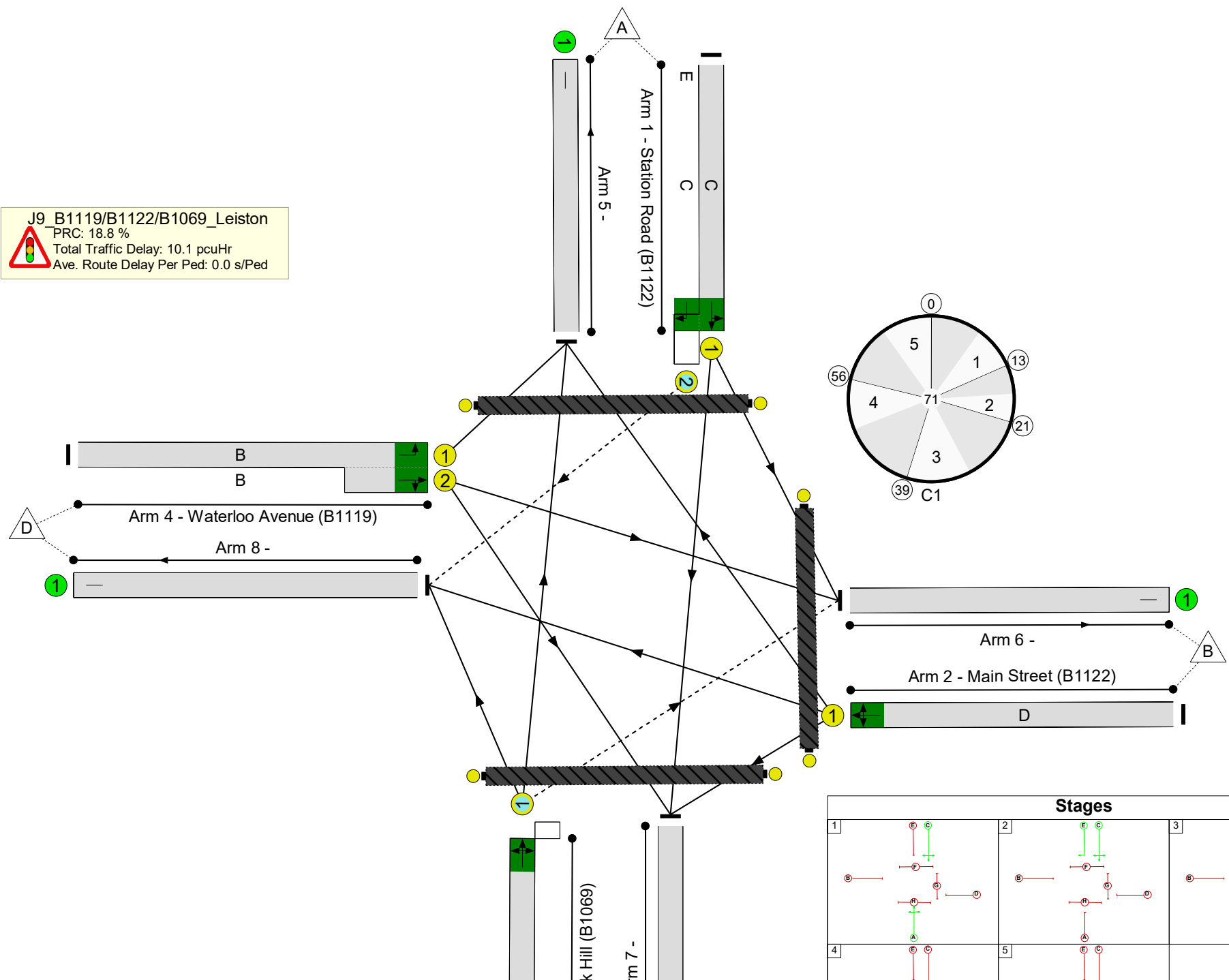
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 18.8 %  
 Total Traffic Delay: 10.1 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

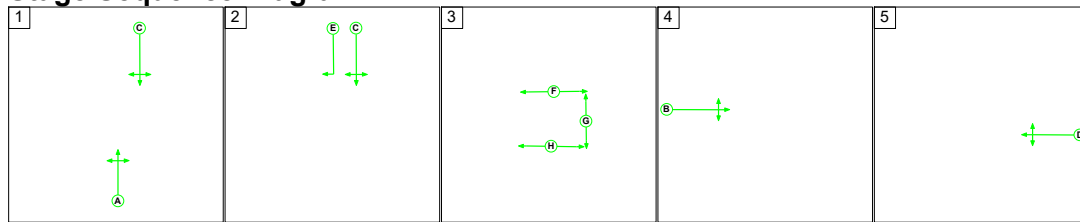
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	230	1800:1800	281+59	67.6 : 67.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	192	1800	254	75.7%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	237	1797	425	55.8%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	180	1730:1756	42+272	57.3 : 57.3%
5/1		U	N/A	N/A	-		-	-	-	255	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 6: '2023 Reference Case 6-7AM' (FG6: '23RC\_6-7AM', Plan 1: '5 Stage Plan')

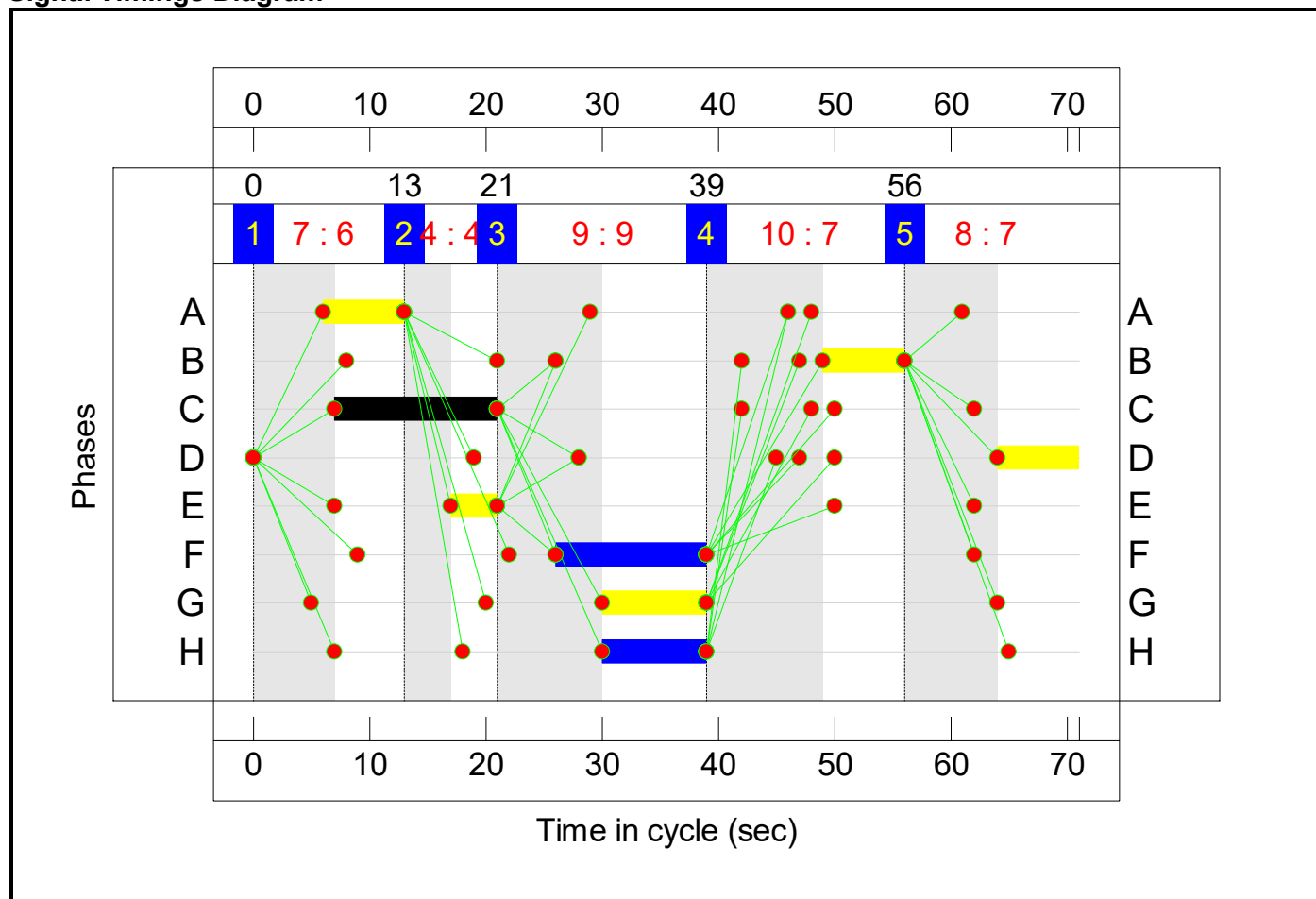
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

Signal Timings Diagram

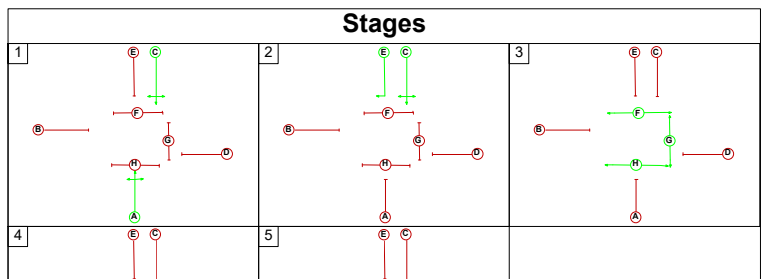
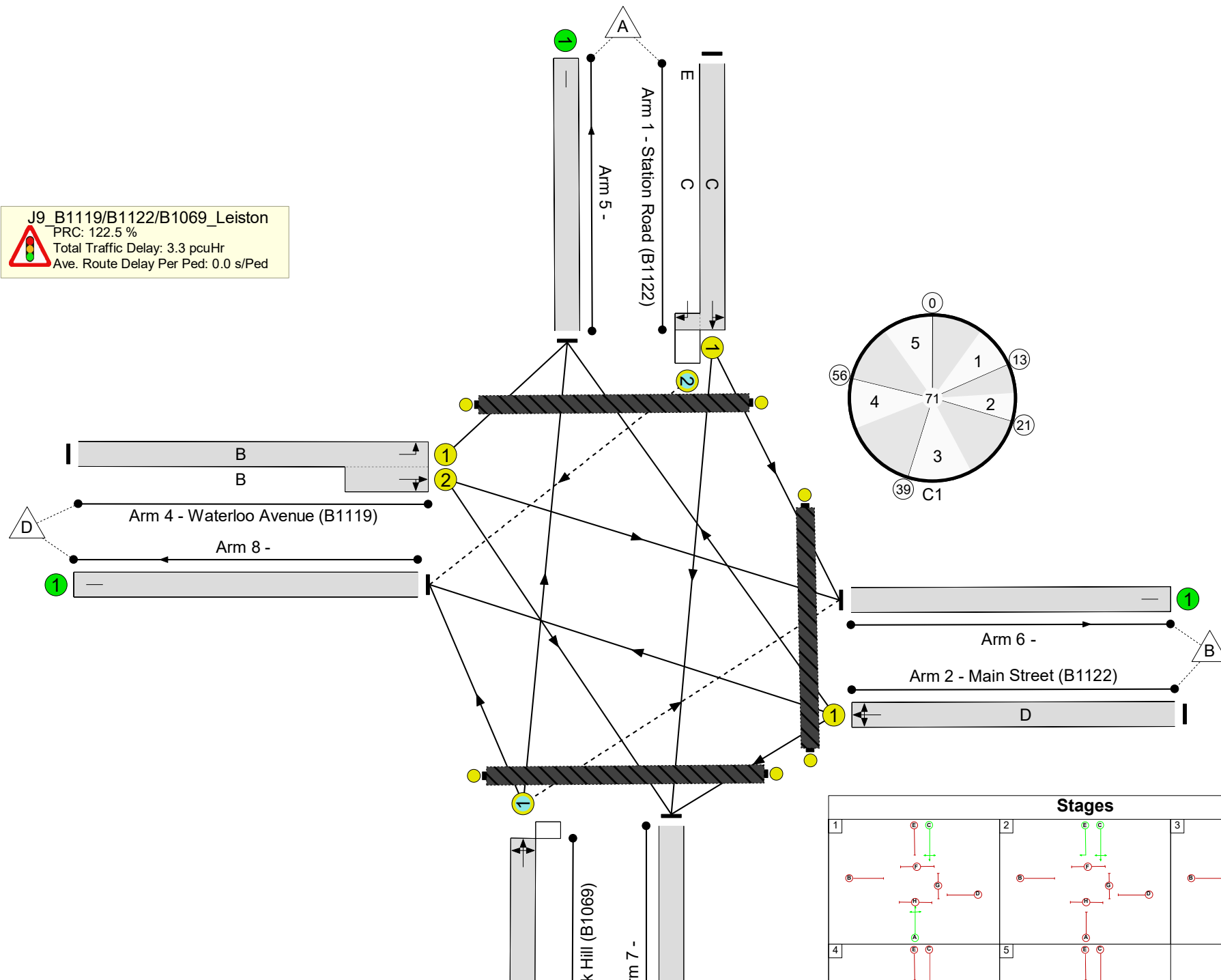




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 122.5 %  
 Total Traffic Delay: 3.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

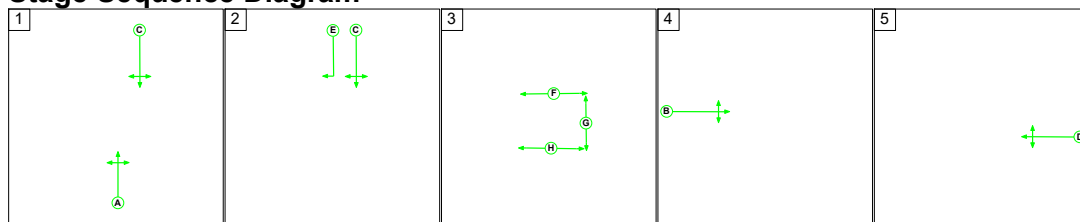
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	40.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	40.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	76	1800:1800	346+41	19.7 : 19.7%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	62	1800	203	30.6%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	82	1799	203	40.5%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	85	1730:1747	26+197	38.1 : 38.1%
5/1		U	N/A	N/A	-		-	-	-	79	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	63	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 7: '2023 Reference Case 7-8AM' (FG7: '23RC\_7-8AM', Plan 1: '5 Stage Plan')

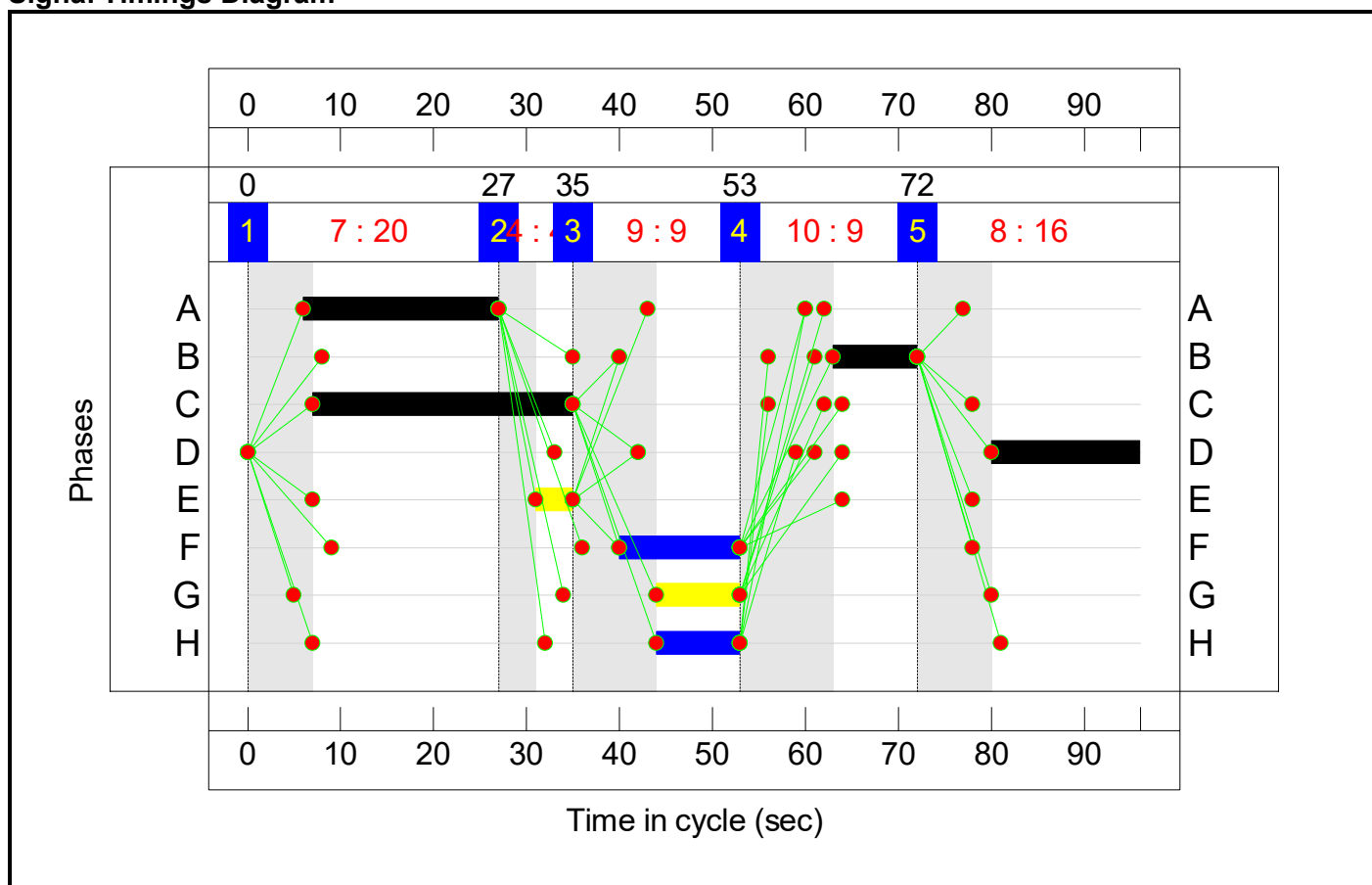
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	20	4	9	9	16
Change Point	0	27	35	53	72

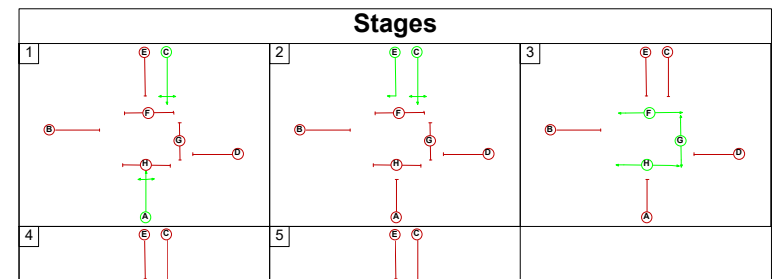
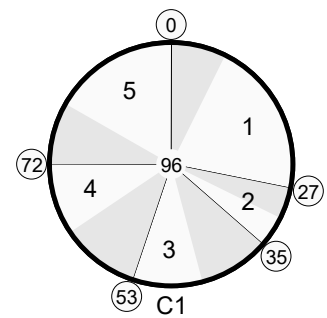
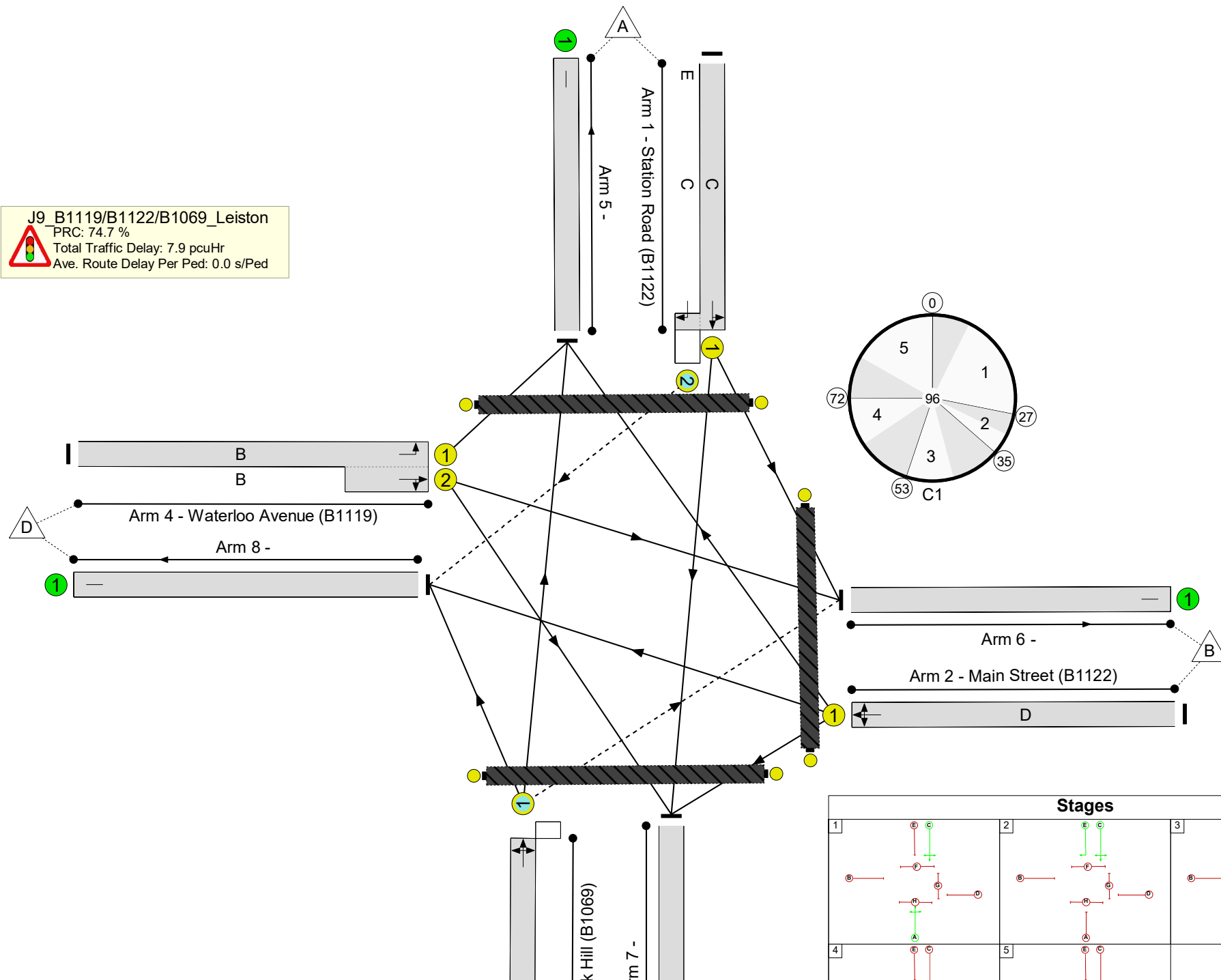
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 74.7 %  
 Total Traffic Delay: 7.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	28	4	193	1800:1800	512+34	35.3 : 35.3%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	16	-	159	1800	319	49.9%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	21	-	199	1802	398	50.0%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	9	-	118	1730:1752	47+182	51.5 : 51.5%
5/1		U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	147	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	190	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	127	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

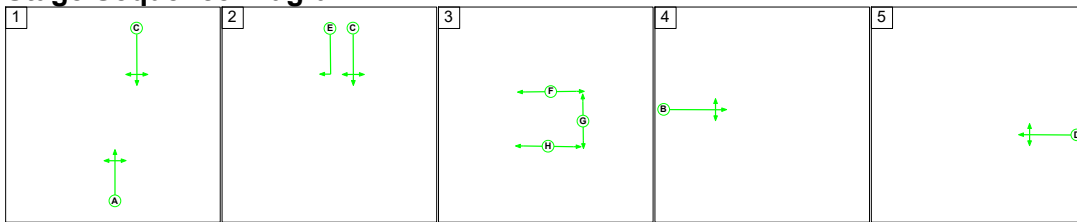




Full Input Data And Results

Scenario 8: '2023 Reference Case 8-9AM' (FG8: '23RC\_8-9AM', Plan 1: '5 Stage Plan')

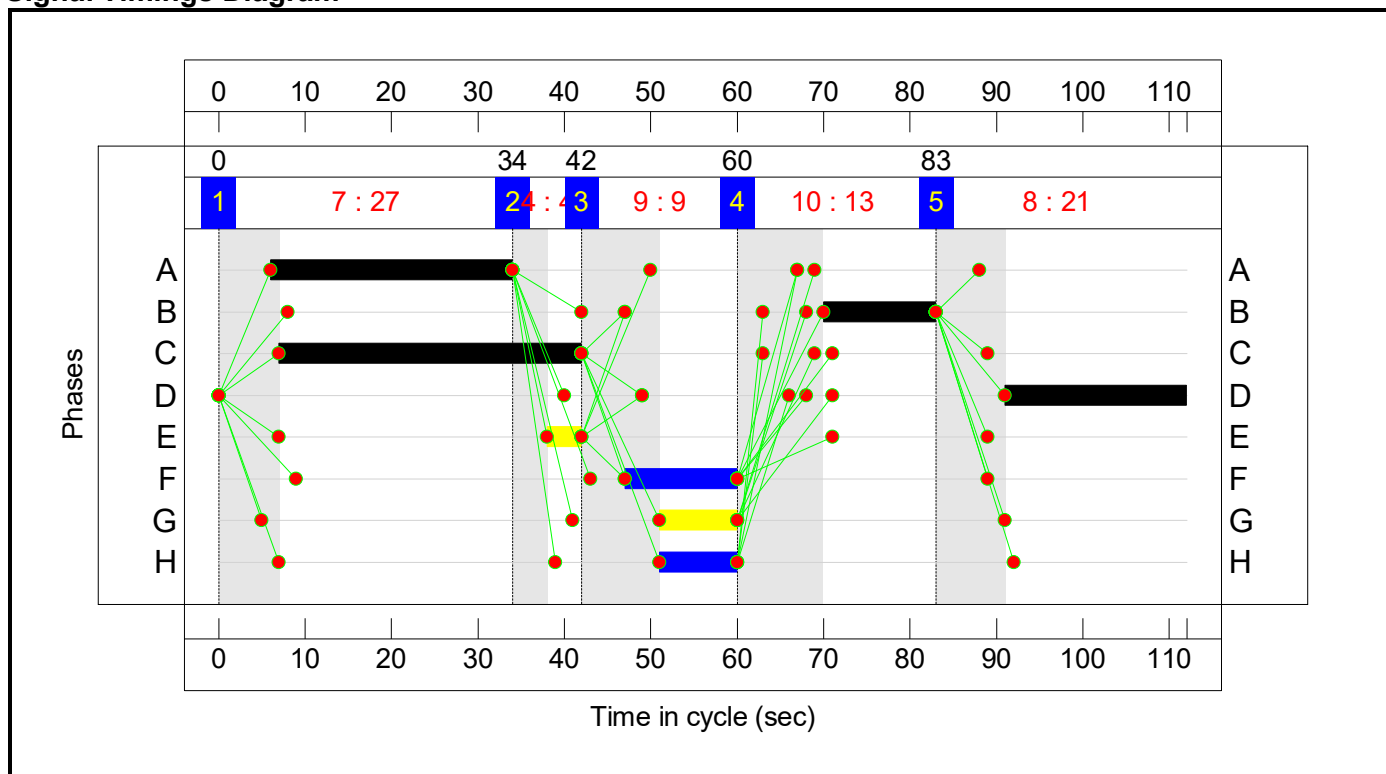
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	4	9	13	21
Change Point	0	34	42	60	83

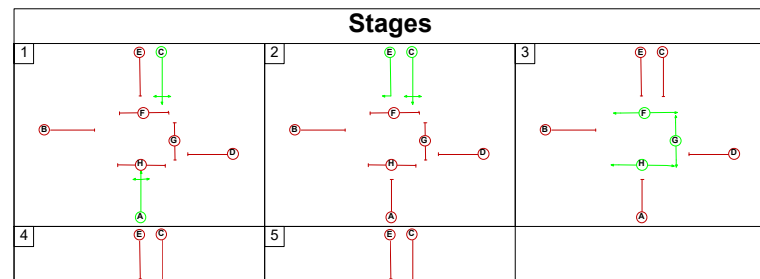
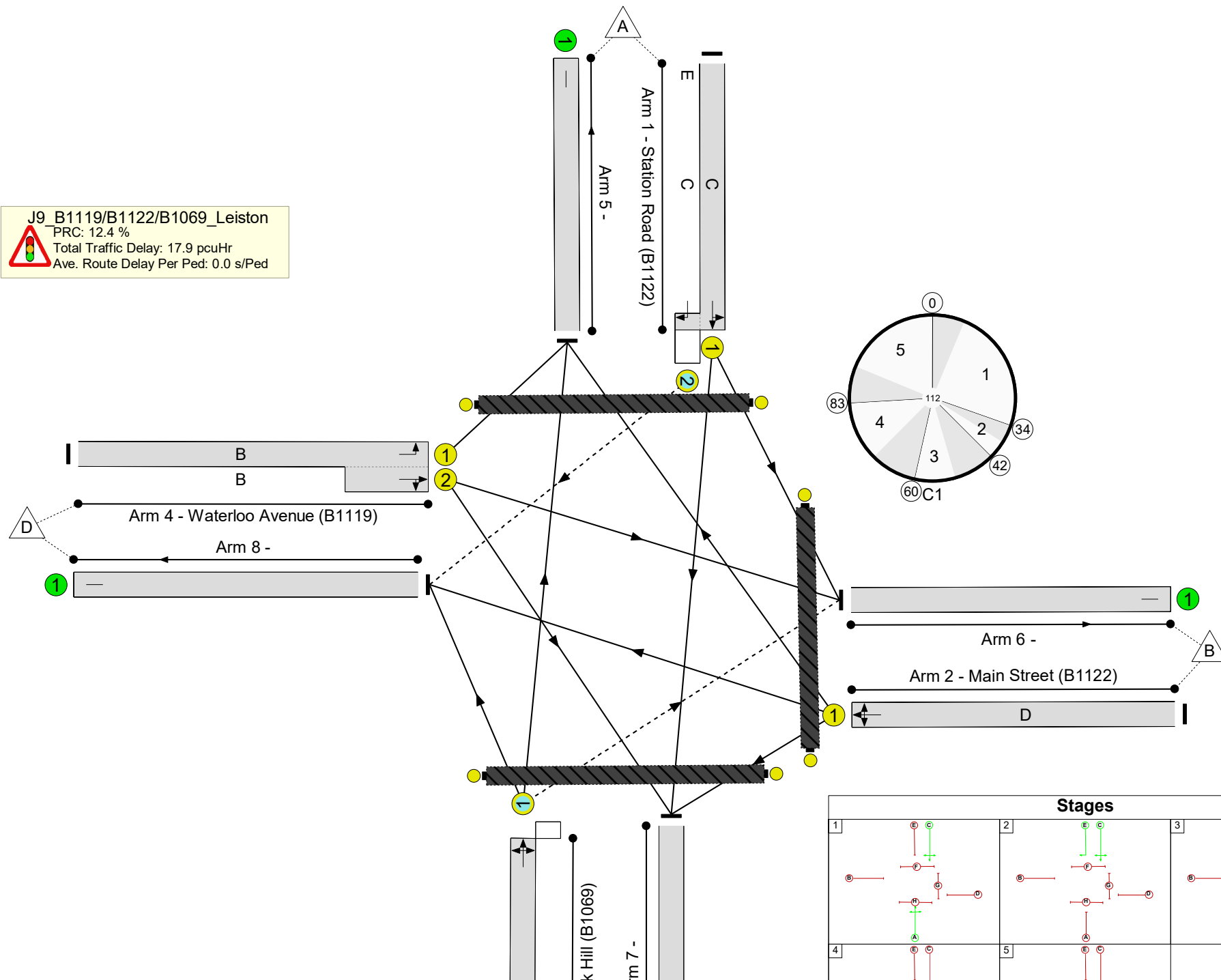
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 12.4 %  
 Total Traffic Delay: 17.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

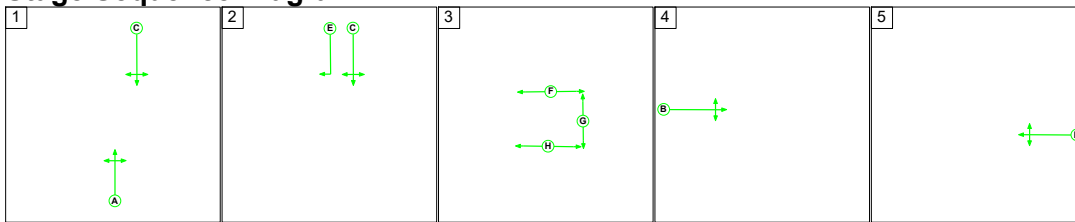
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	35	4	330	1800:1800	545+35	56.8 : 56.8%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	21	-	283	1800	354	80.0%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	28	-	281	1797	354	79.3%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	13	-	197	1730:1753	41+213	77.5 : 77.5%
5/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	222	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 9: '2023 Reference Case 3-4PM' (FG9: '23RC\_3-4PM', Plan 1: '5 Stage Plan')

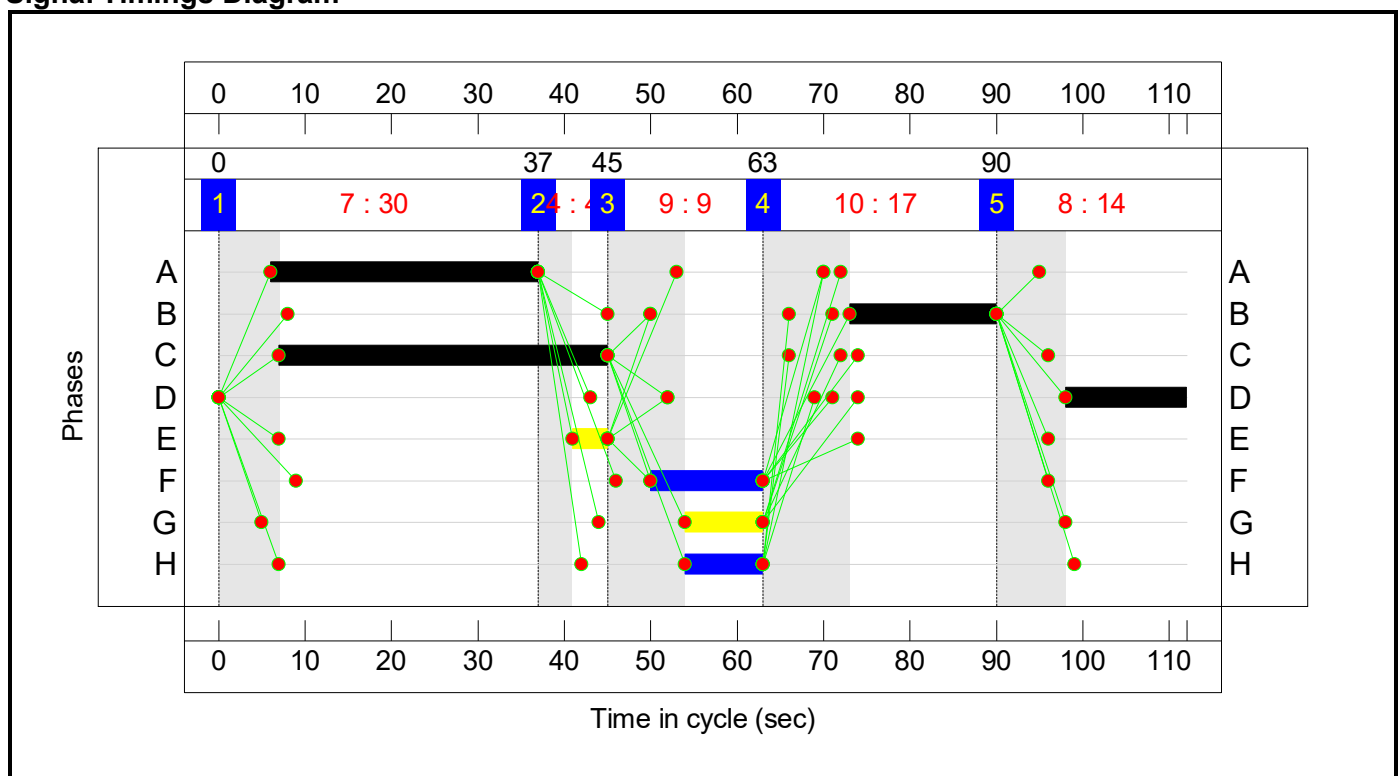
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	30	4	9	17	14
Change Point	0	37	45	63	90

Signal Timings Diagram

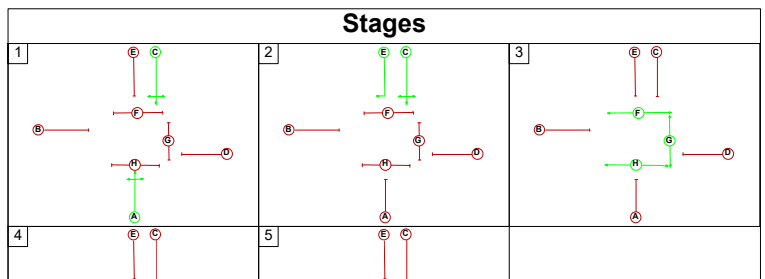
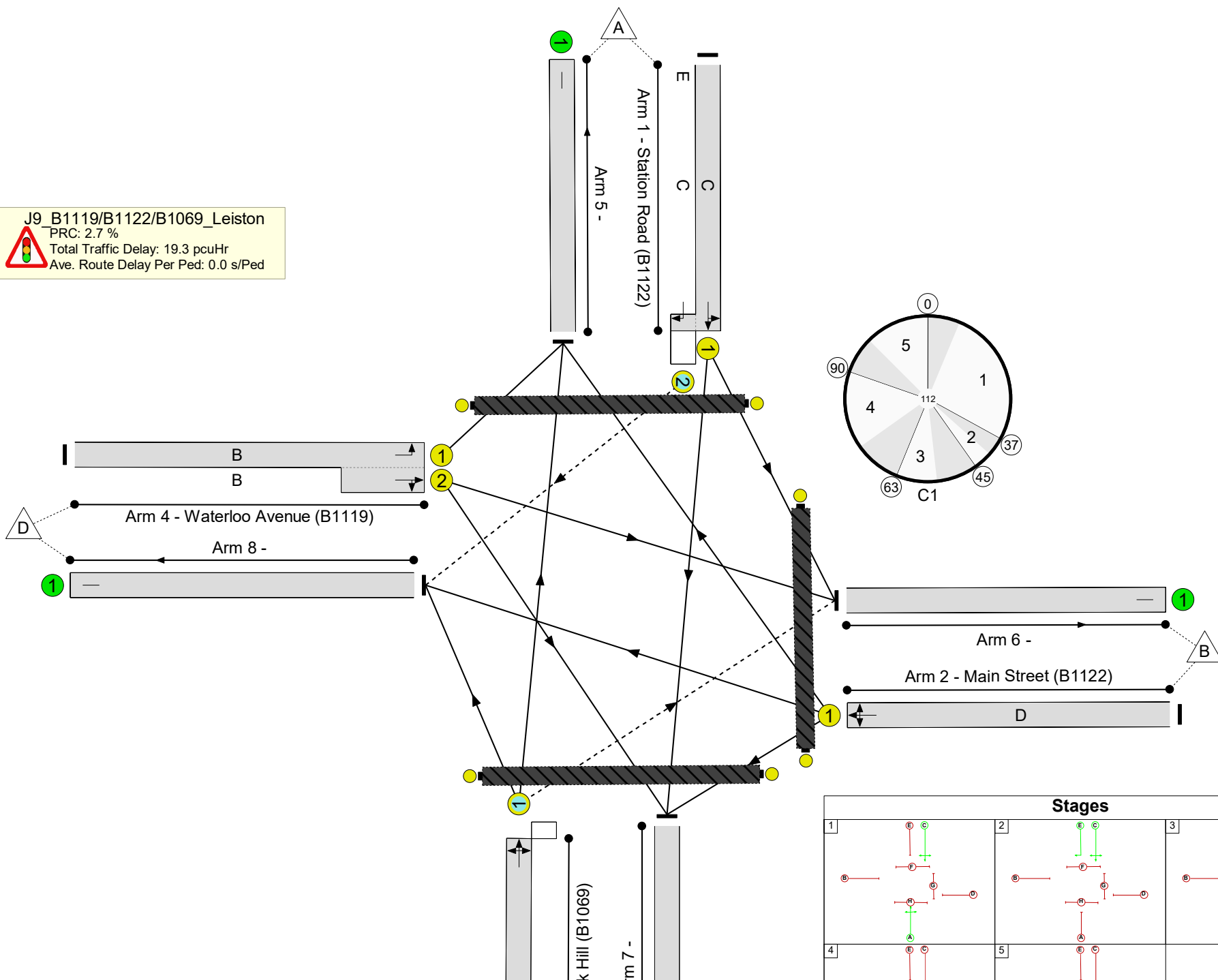


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 2.7 %  
 Total Traffic Delay: 19.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

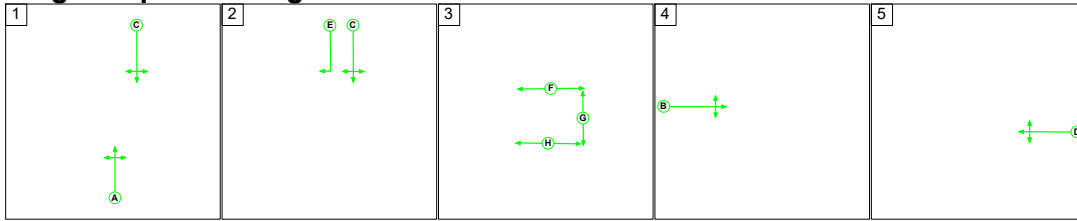
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	87.6%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	87.6%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	38	4	345	1800:1800	549+82	54.6 : 54.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	14	-	191	1800	241	79.2%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	31	-	310	1790	354	87.6%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	17	-	249	1730:1756	38+270	80.6 : 80.6%
5/1		U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 10: '2023 Reference Case 5-6PM' (FG10: '23RC\_5-6PM', Plan 1: '5 Stage Plan')

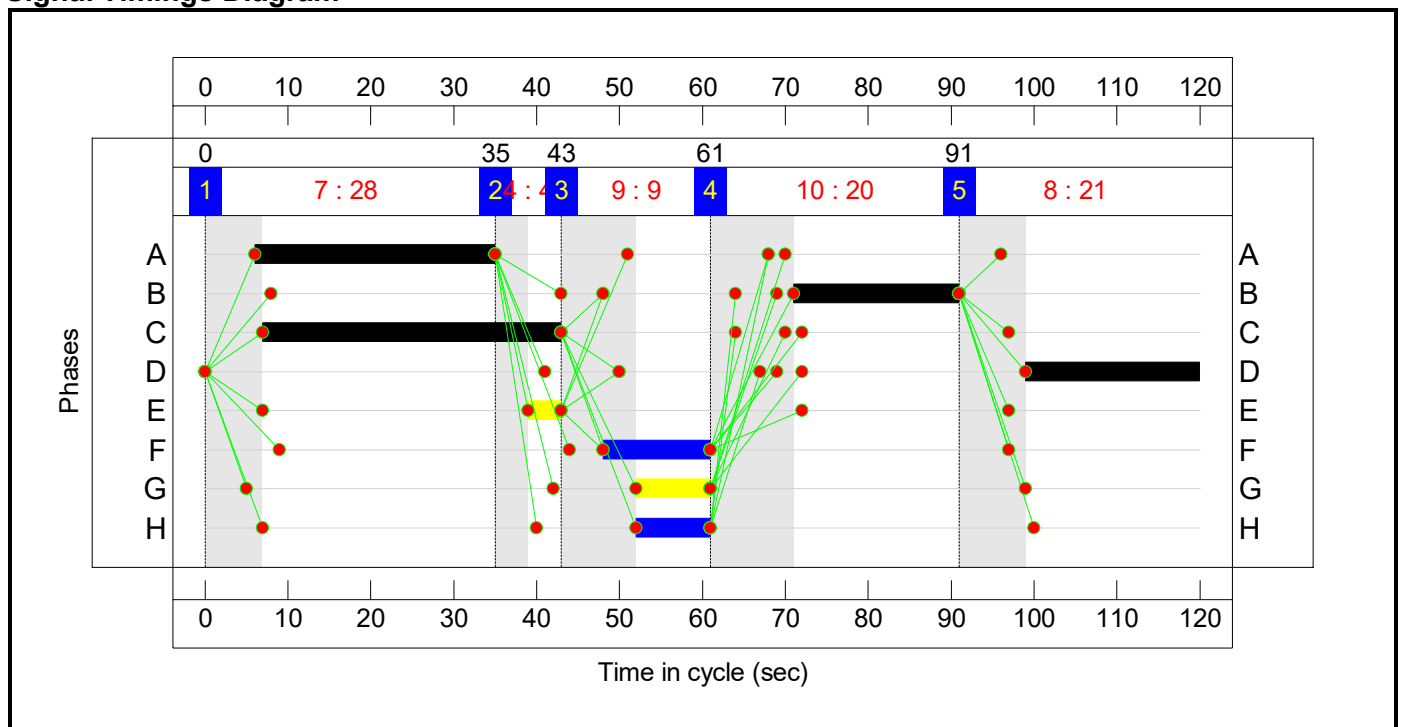
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	9	20	21
Change Point	0	35	43	61	91

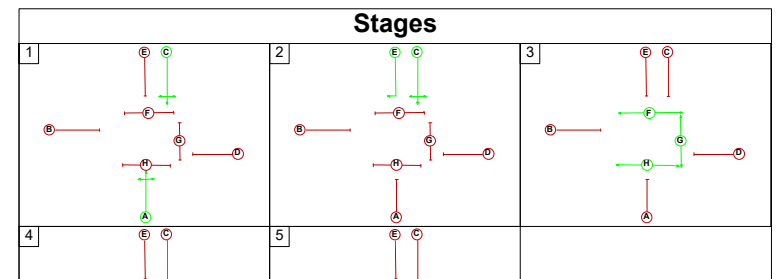
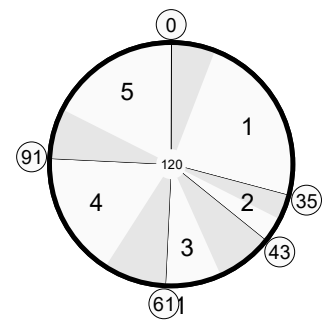
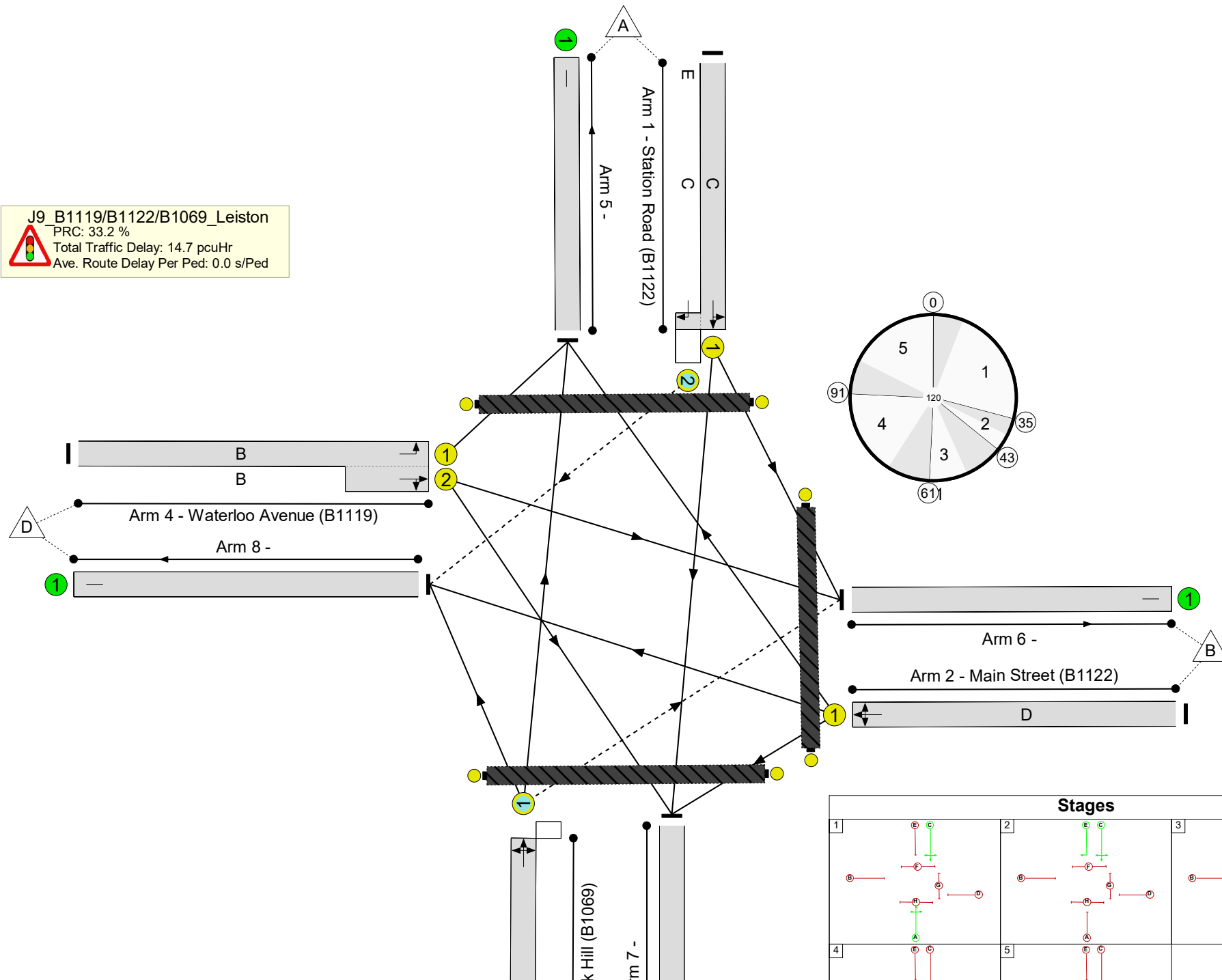
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 33.2 %  
 Total Traffic Delay: 14.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	67.6%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	67.6%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	36	4	236	1800:1800	448+114	41.9 : 41.9%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	21	-	223	1800	330	67.6%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	29	-	294	1792	437	67.3%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	20	-	222	1730:1754	45+289	66.5 : 66.5%
5/1		U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	210	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	237	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

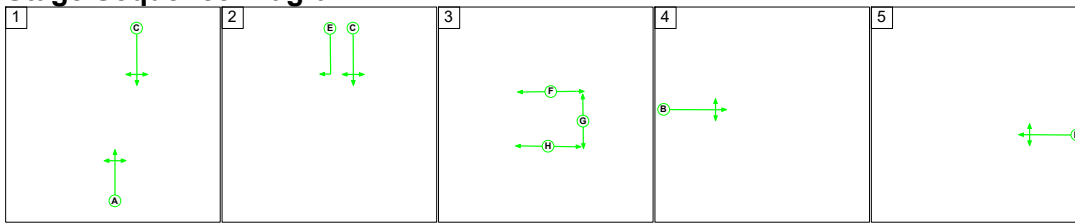




Full Input Data And Results

Scenario 11: '2023 Early Years 6-7AM' (FG11: '23EY\_6-7AM', Plan 1: '5 Stage Plan')

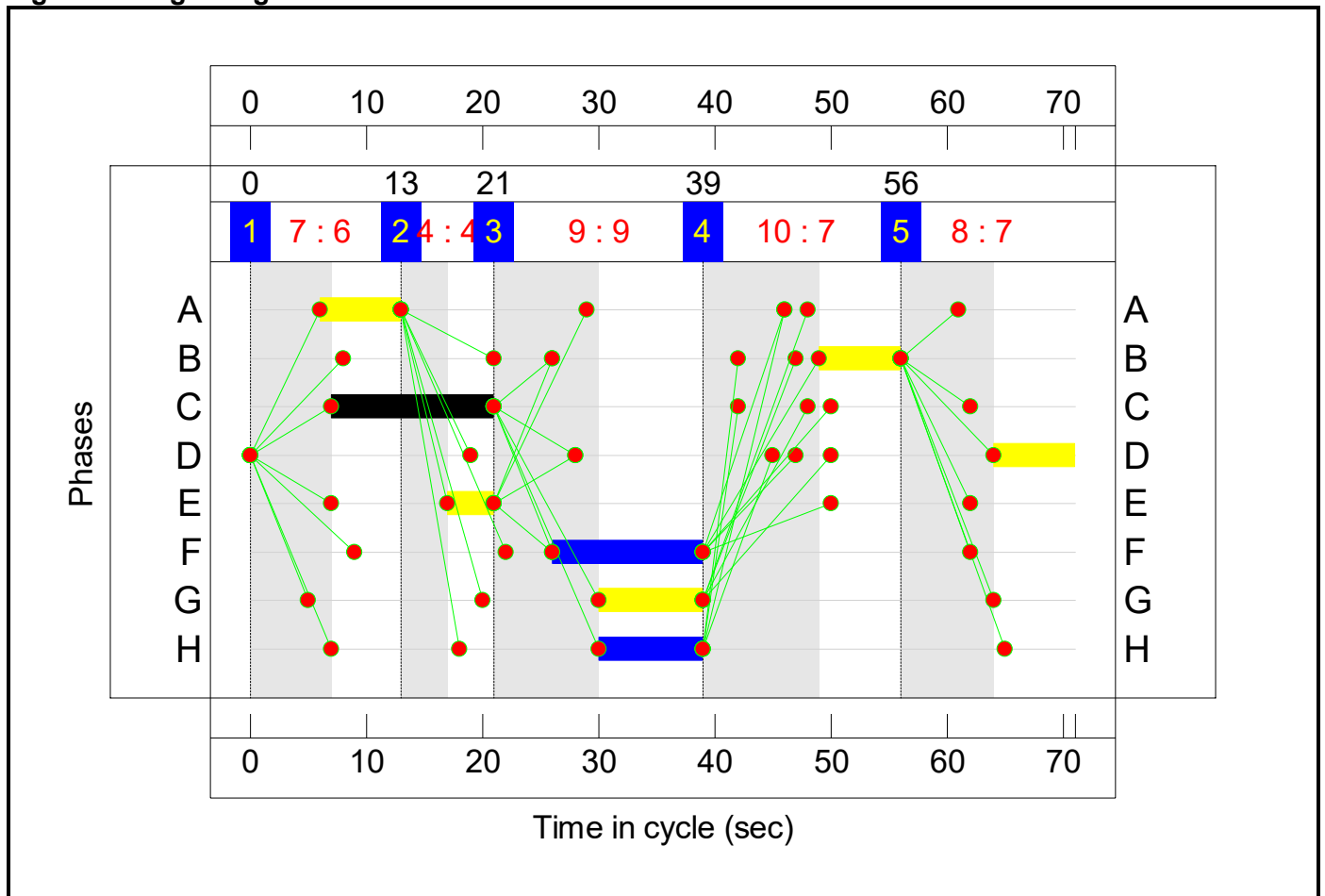
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

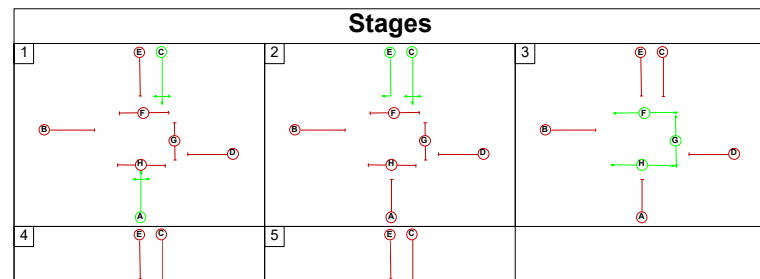
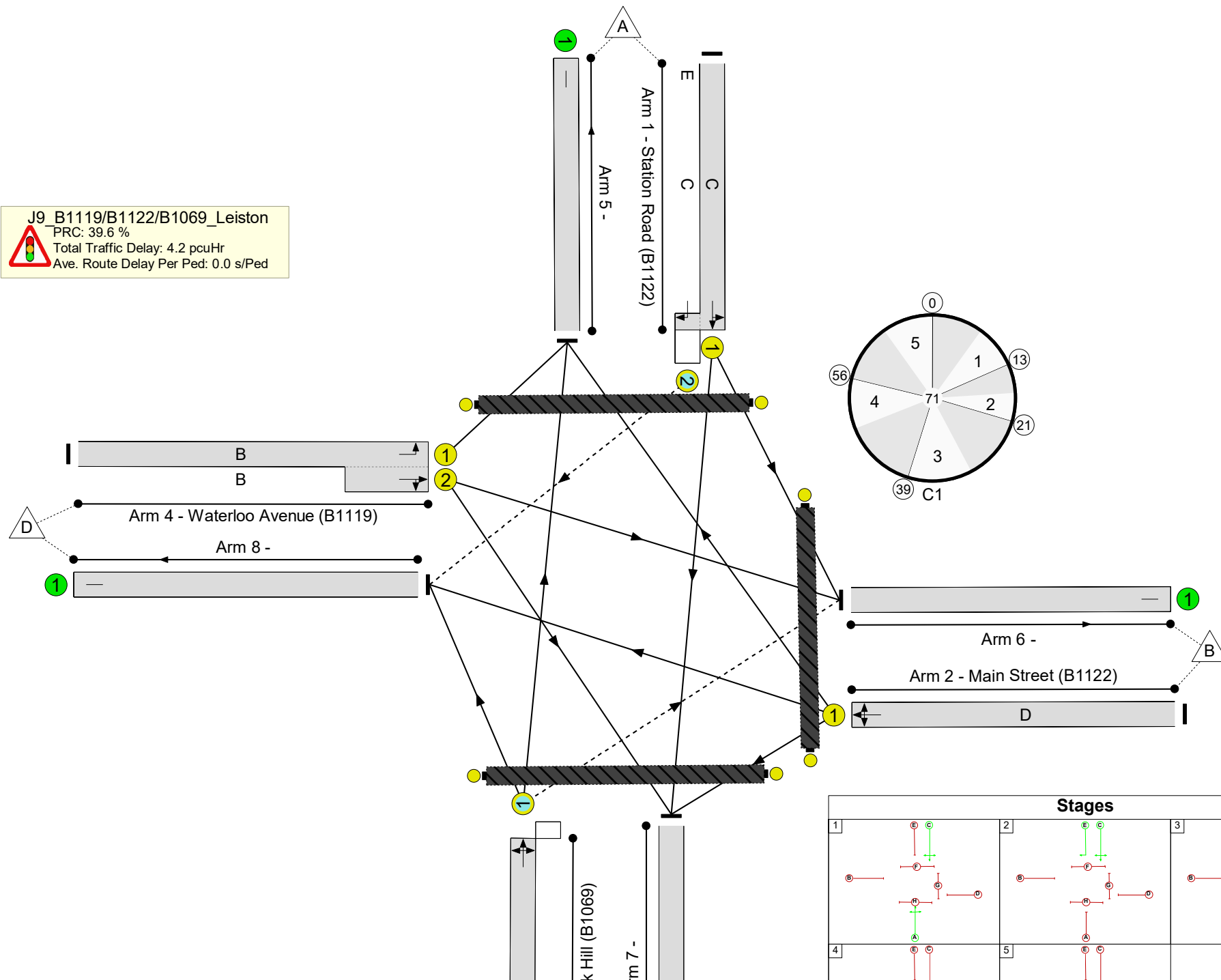
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 39.6 %  
 Total Traffic Delay: 4.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

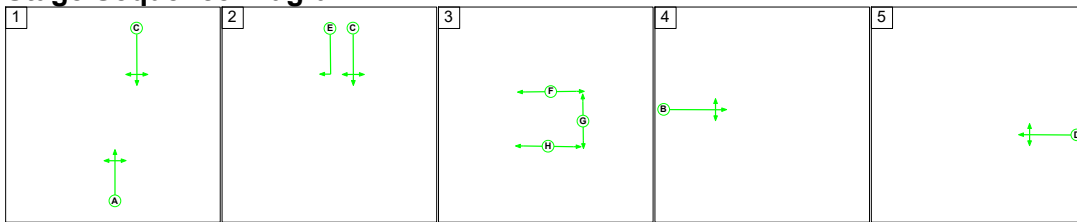
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	64.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	64.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	88	1800:1800	324+67	22.5 : 22.5%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	23	1800	203	11.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	130	1790	202	64.5%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	118	1730:1746	93+197	40.7 : 40.7%
5/1		U	N/A	N/A	-		-	-	-	114	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	99	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	78	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 12: '2023 Early Years 7-8AM' (FG12: '23EY\_7-8AM', Plan 1: '5 Stage Plan')

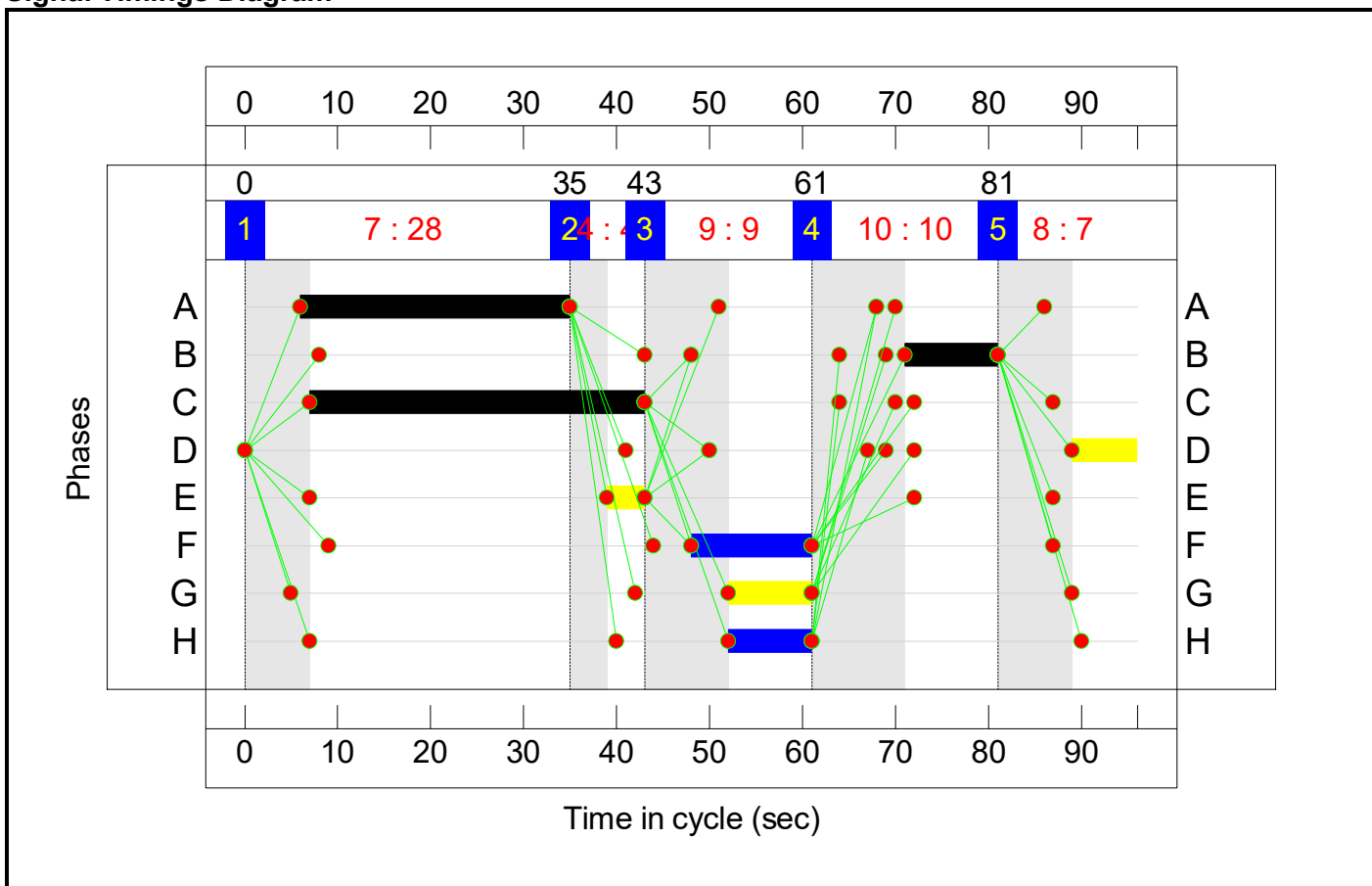
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	9	10	7
Change Point	0	35	43	61	81

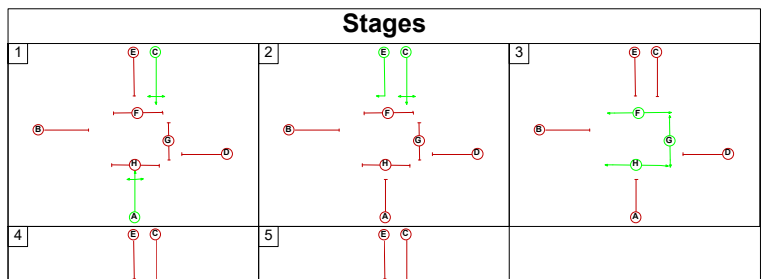
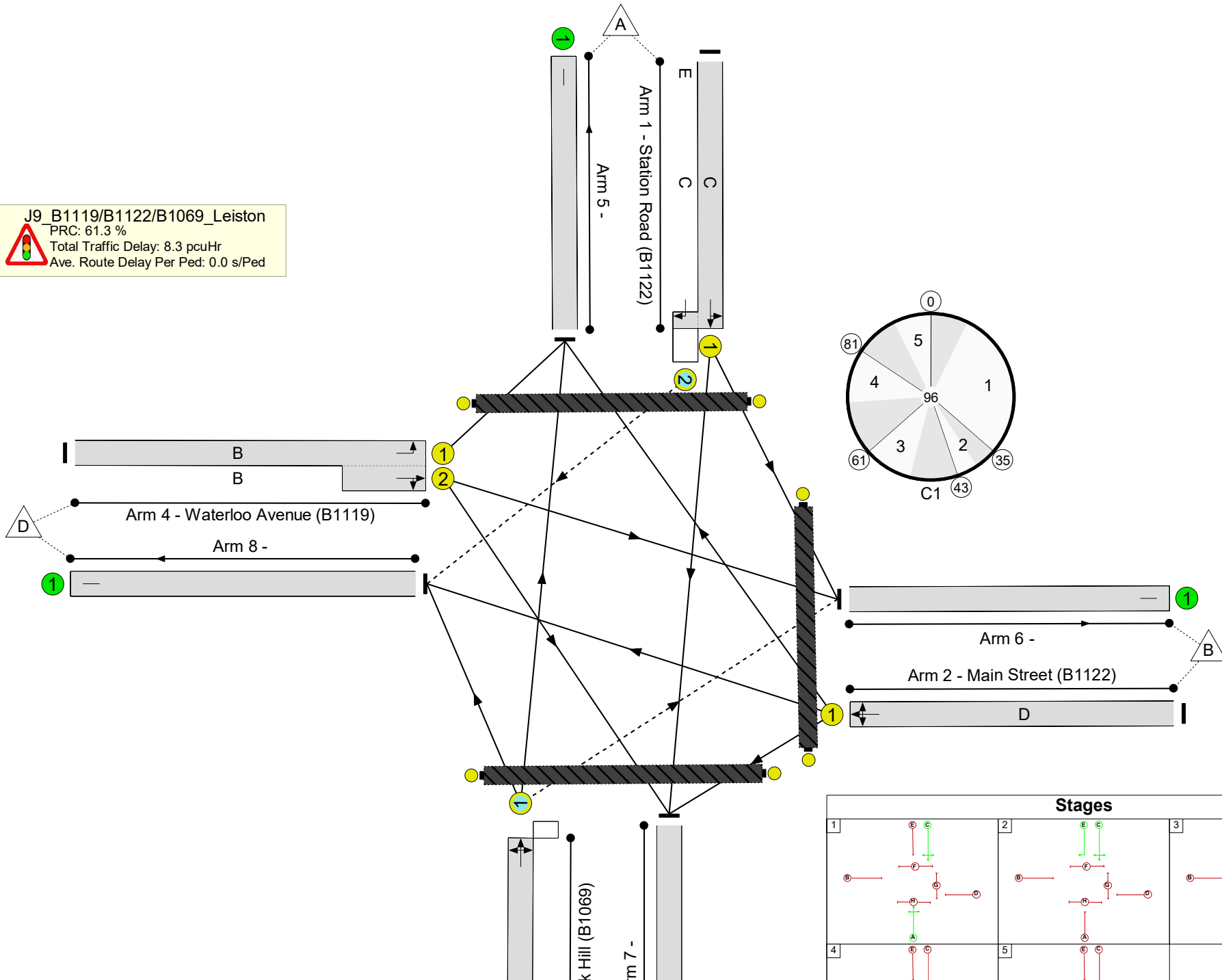
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 61.3 %  
 Total Traffic Delay: 8.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

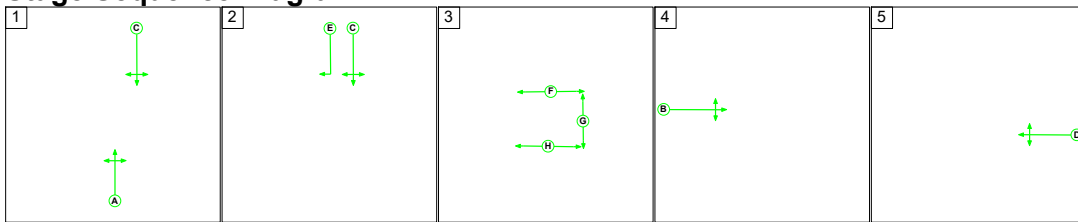
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	55.8%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	55.8%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	36	4	225	1800:1800	586+115	32.1 : 32.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	69	1800	150	46.0%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	29	-	313	1795	561	55.8%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	10	-	170	1730:1751	114+199	54.3 : 54.3%
5/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	196	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	159	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 13: '2023 Early Years 8-9AM' (FG13: '23EY\_8-9AM', Plan 1: '5 Stage Plan')

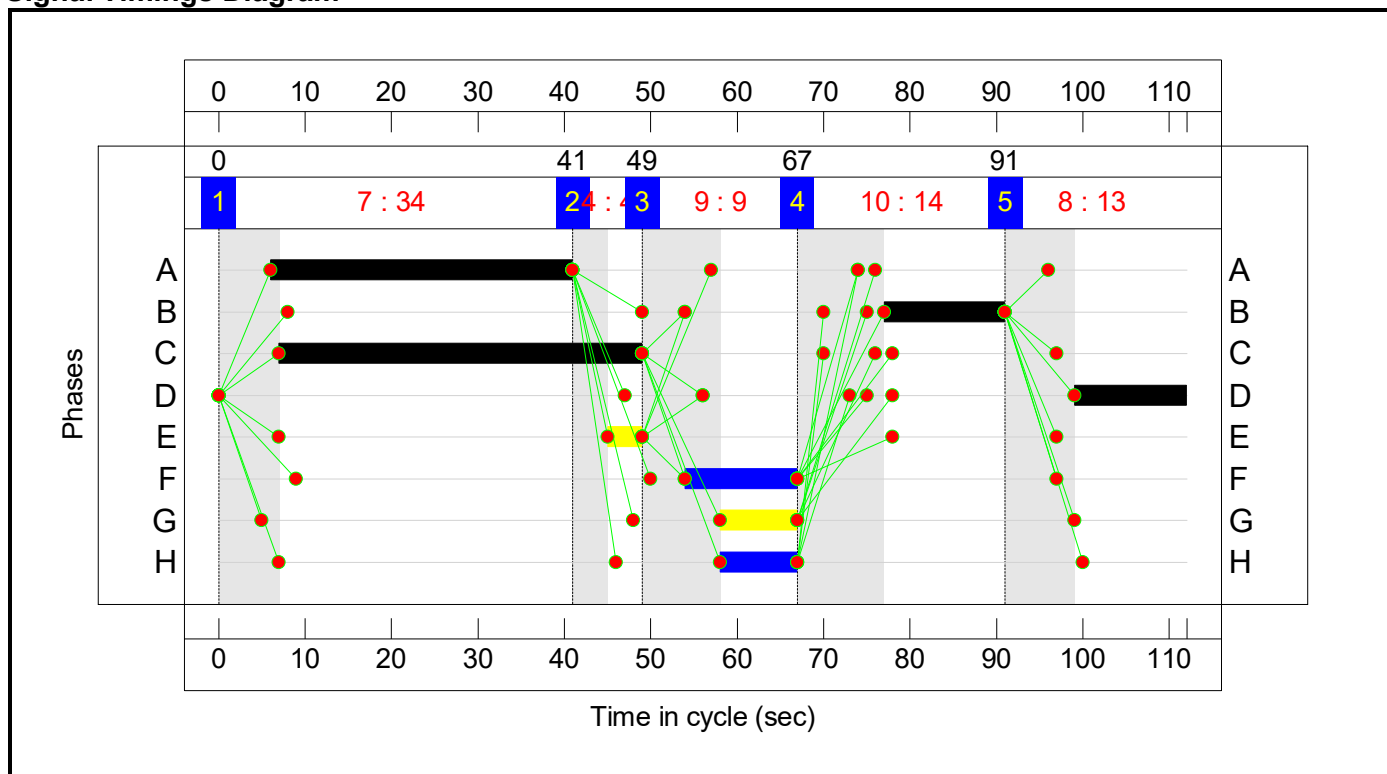
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	34	4	9	14	13
Change Point	0	41	49	67	91

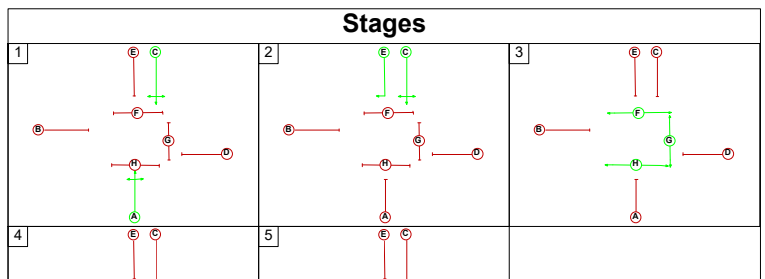
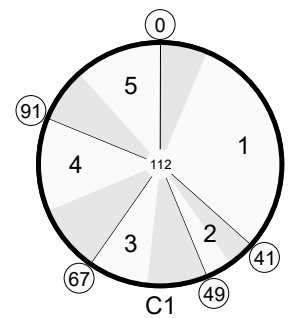
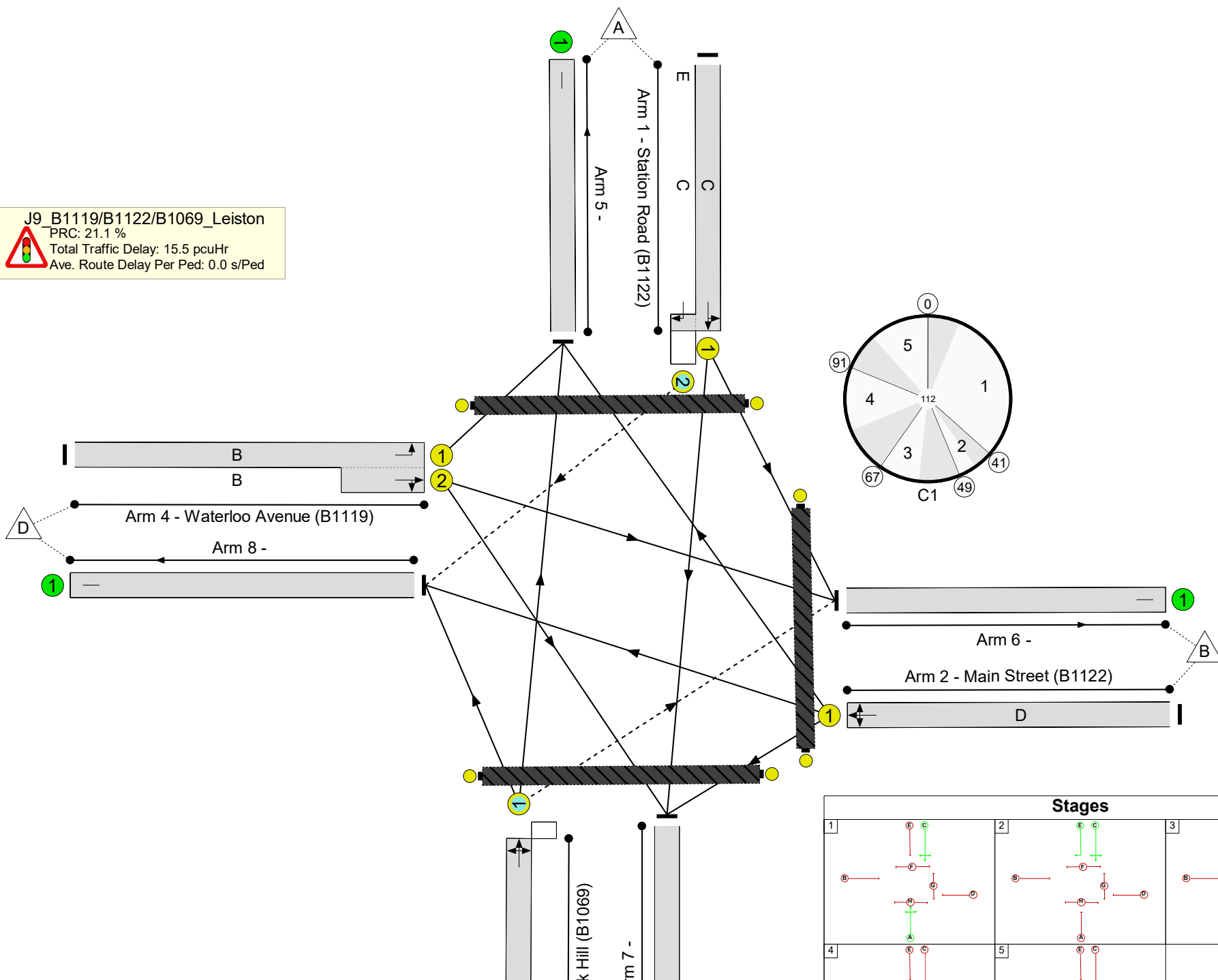
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 21.1 %  
 Total Traffic Delay: 15.5 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

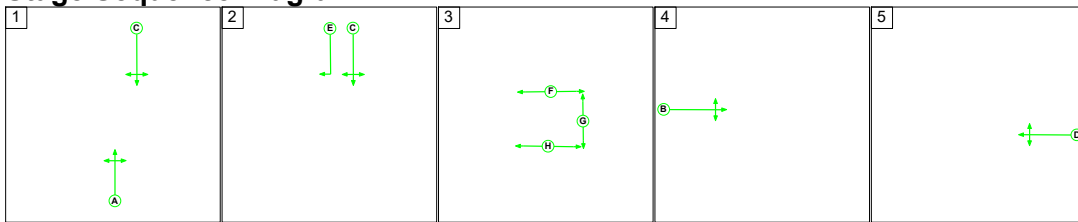
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.3%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.3%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	42	4	341	1800:1800	635+59	49.1 : 49.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	13	-	156	1800	225	69.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	35	-	412	1786	554	74.3%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	14	-	206	1730:1753	55+223	73.9 : 73.9%
5/1		U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 14: '2023 Early Years 3-4PM' (FG14: '23EY\_3-4PM', Plan 1: '5 Stage Plan')

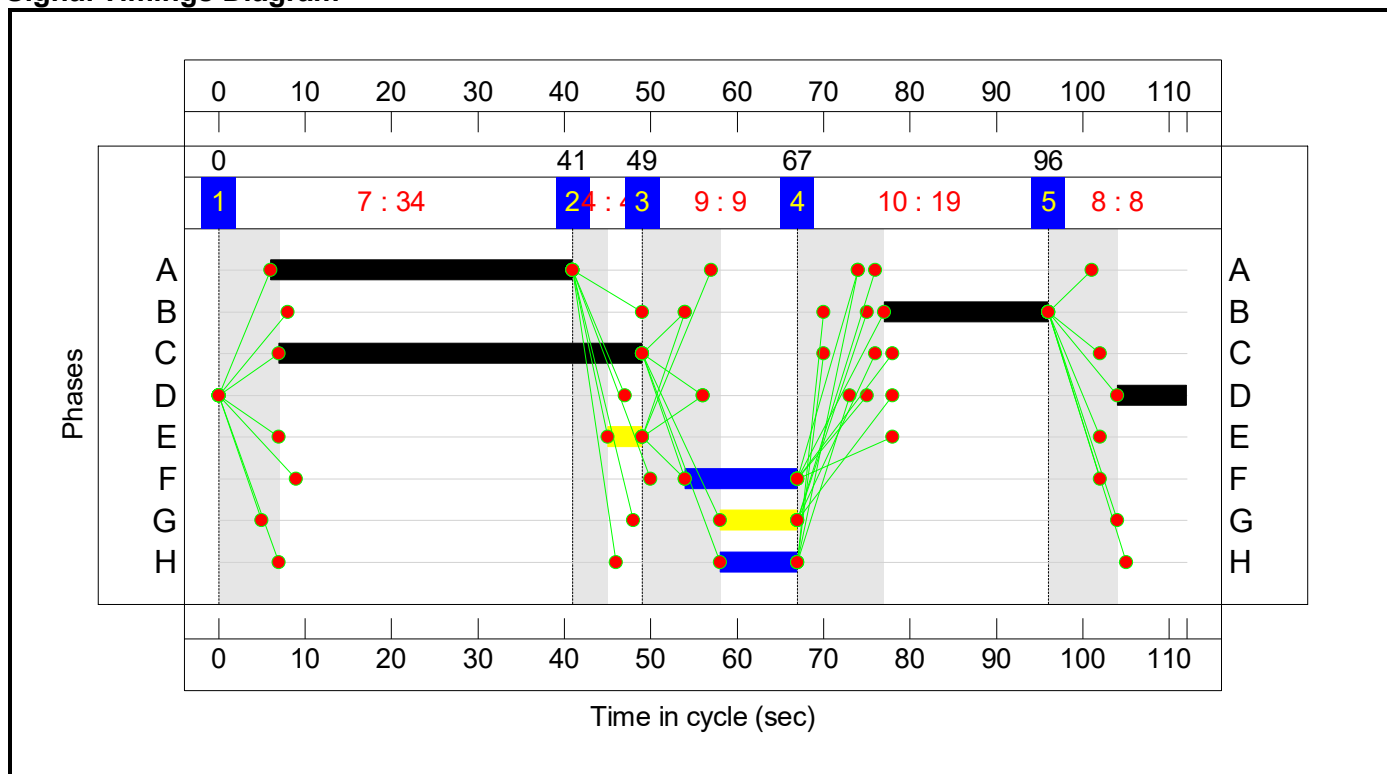
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	34	4	9	19	8
Change Point	0	41	49	67	96

Signal Timings Diagram

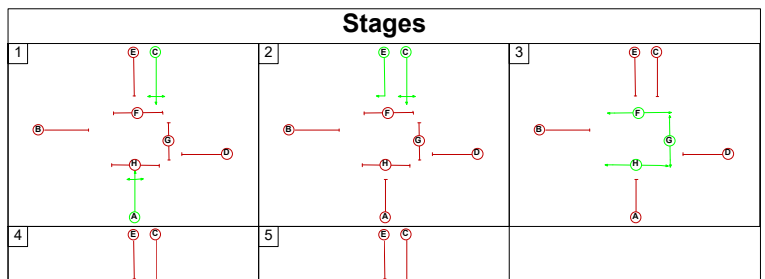
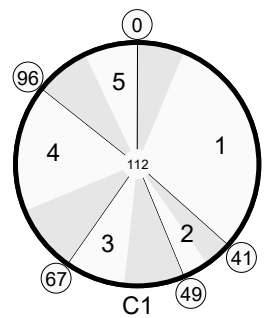
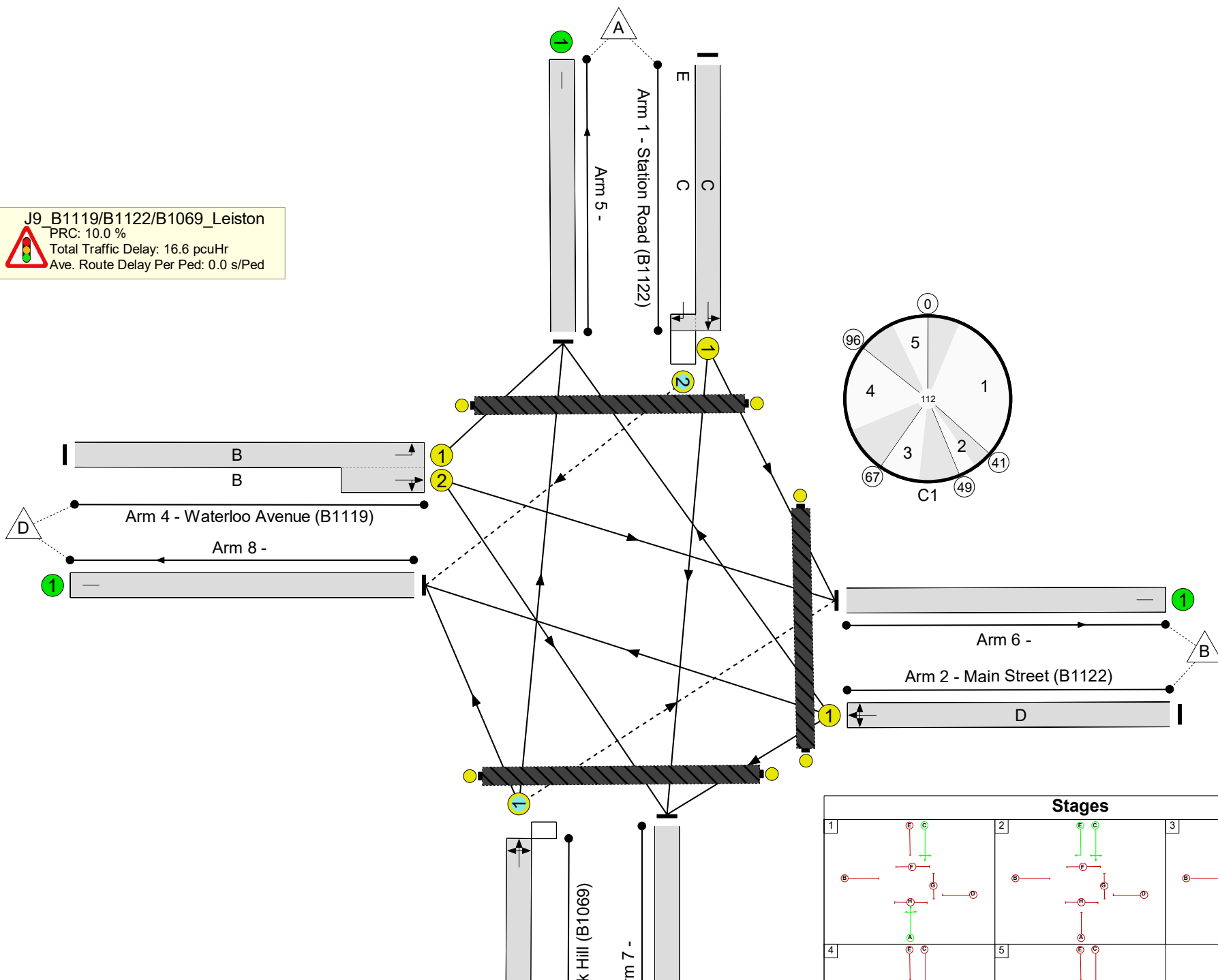




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 10.0 %  
 Total Traffic Delay: 16.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

**Network Results**

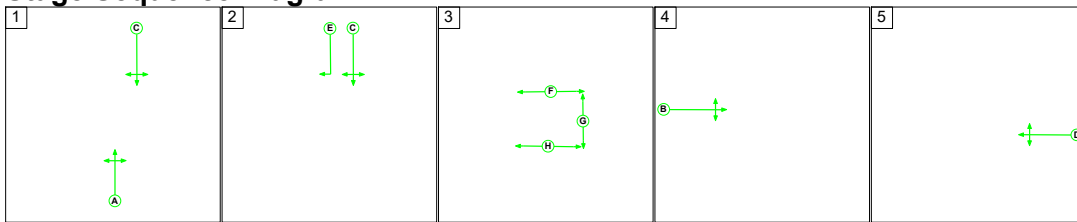
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.8%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.8%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	42	4	359	1800:1800	588+109	51.5 : 51.5%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	8	-	106	1800	145	73.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	35	-	391	1782	478	81.8%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	19	-	260	1730:1756	55+292	74.9 : 74.9%
5/1		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 15: '2023 Early Years 5-6PM' (FG15: '23EY\_5-6PM', Plan 1: '5 Stage Plan')

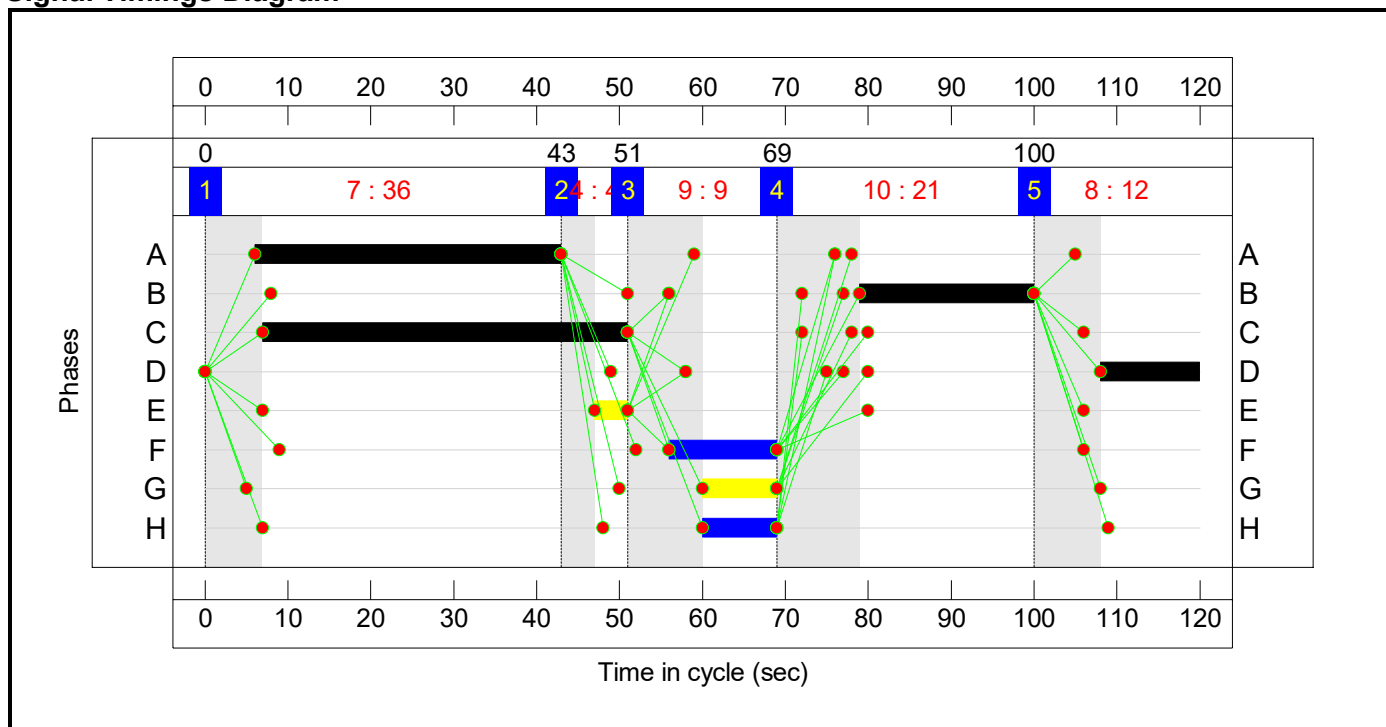
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	36	4	9	21	12
Change Point	0	43	51	69	100

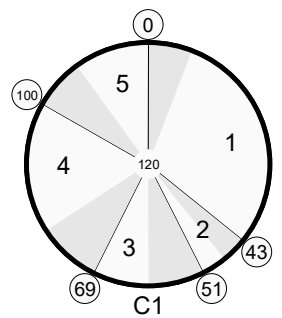
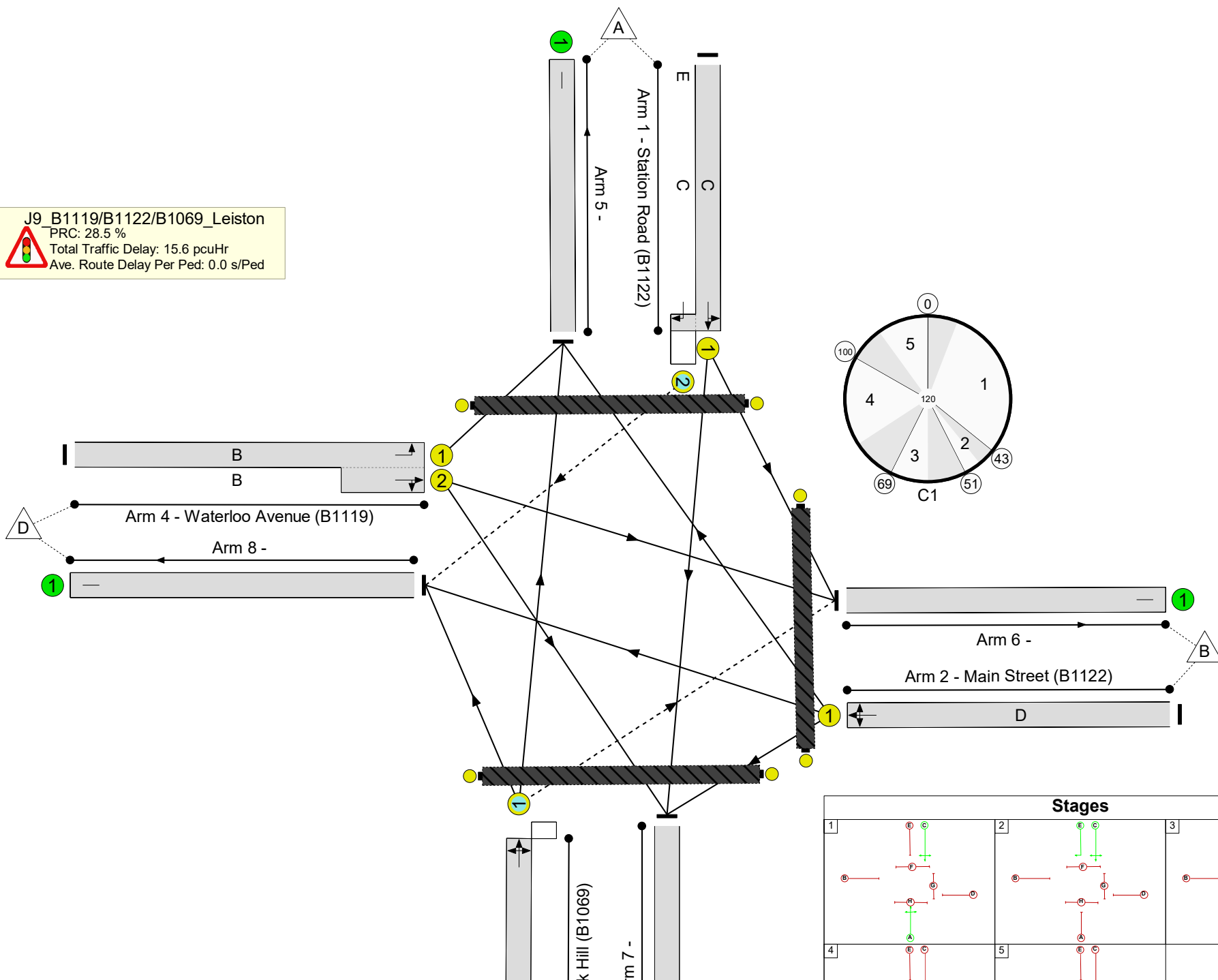
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 28.5 %  
 Total Traffic Delay: 15.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Stages		
1	2	3
4	5	

The table shows five stages of the signal cycle, each with a corresponding traffic light diagram. The diagrams use letters A, B, C, D, E, F, G, H to represent different traffic movements and their status (green, red, or amber).

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	70.1%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	70.1%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	44	4	301	1800:1800	378+169	55.1 : 55.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	12	-	135	1800	195	69.2%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	37	-	398	1794	568	70.1%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	21	-	241	1730:1754	54+298	68.4 : 68.4%
5/1		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	282	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

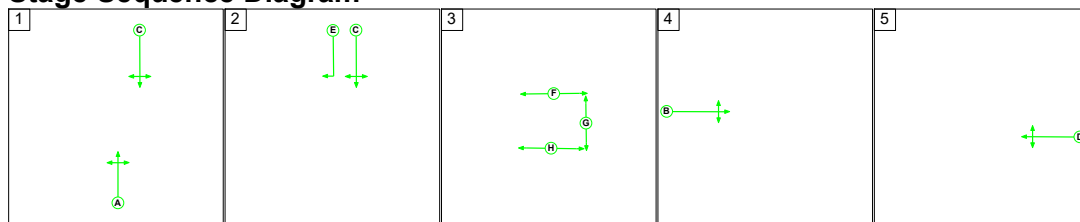




Full Input Data And Results

Scenario 16: '2028 Reference Case 6-7AM' (FG16: '28RC\_6-7AM', Plan 1: '5 Stage Plan')

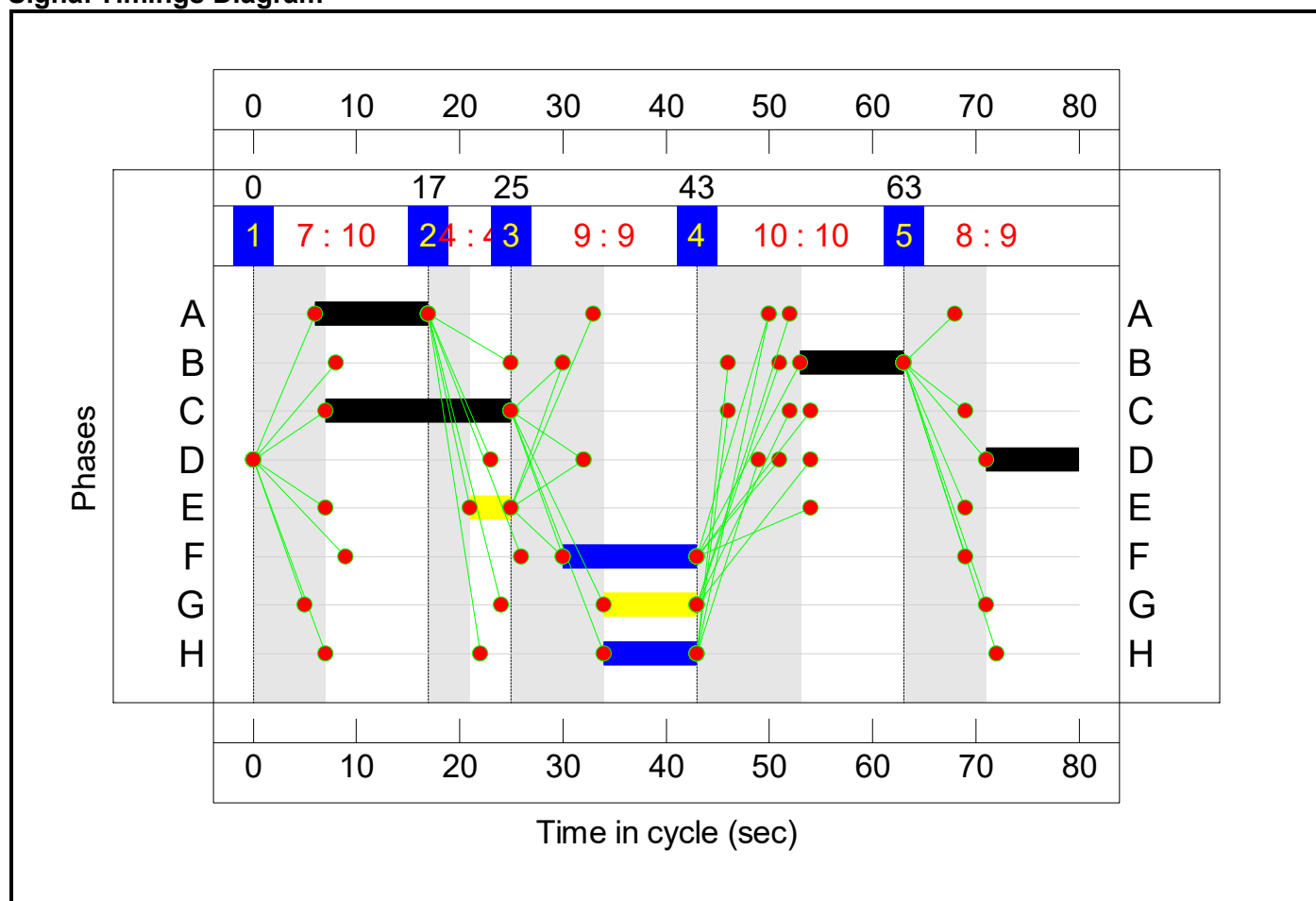
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	10	4	9	10	9
Change Point	0	17	25	43	63

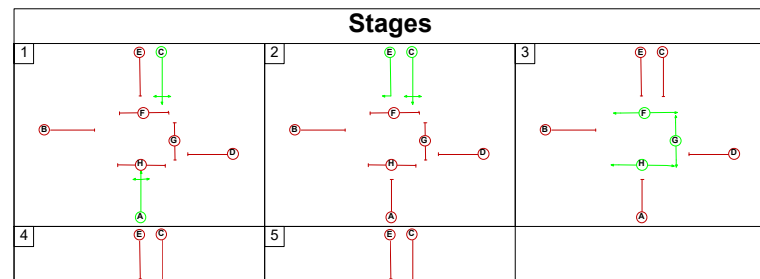
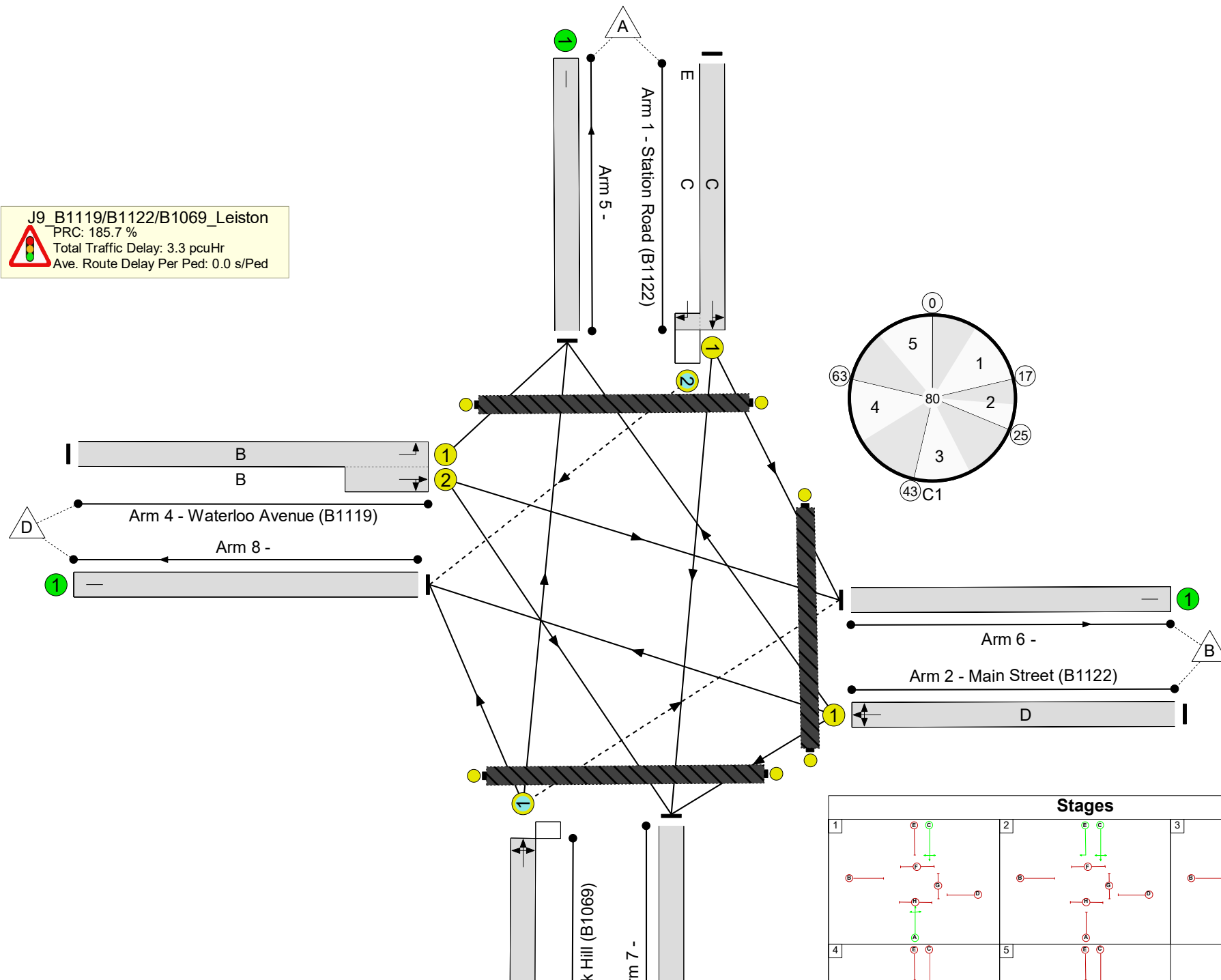
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 185.7 %  
 Total Traffic Delay: 3.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

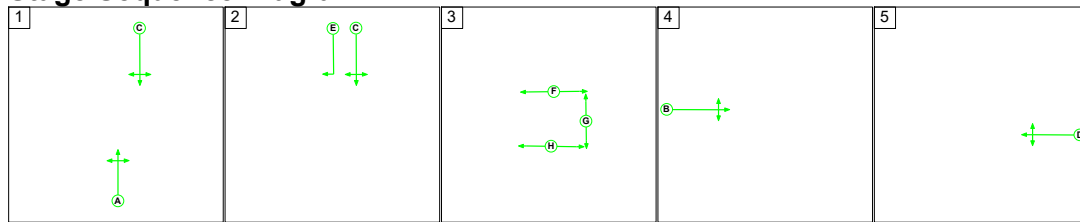
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	31.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	31.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	18	4	79	1800:1800	384+49	18.2 : 18.2%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	9	-	64	1800	225	28.4%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	11	-	85	1799	270	31.5%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	10	-	85	1730:1746	32+240	31.2 : 31.2%
5/1		U	N/A	N/A	-		-	-	-	82	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	95	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	64	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 17: '2028 Reference Case 7-8AM' (FG17: '28RC\_7-8AM', Plan 1: '5 Stage Plan')

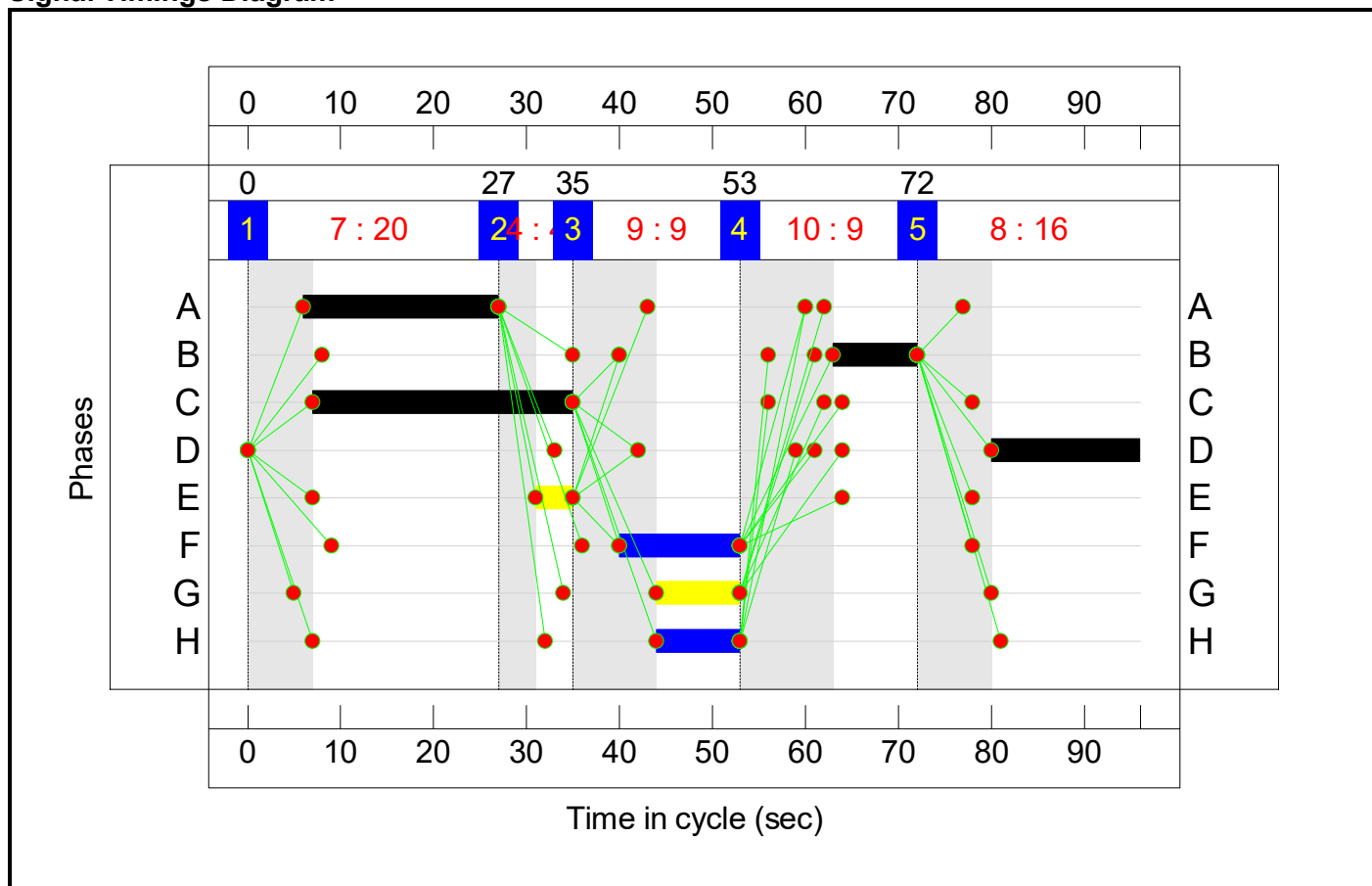
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	20	4	9	9	16
Change Point	0	27	35	53	72

Signal Timings Diagram

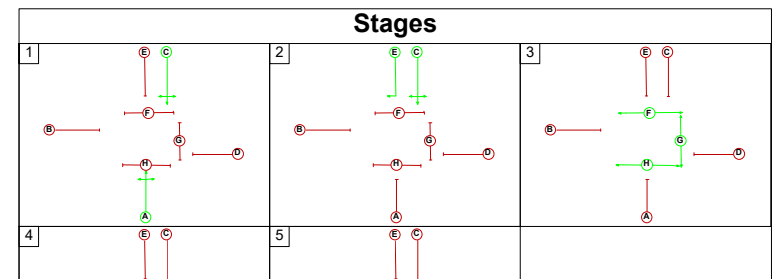
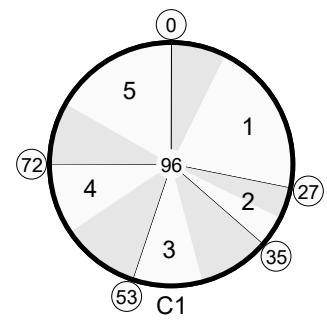
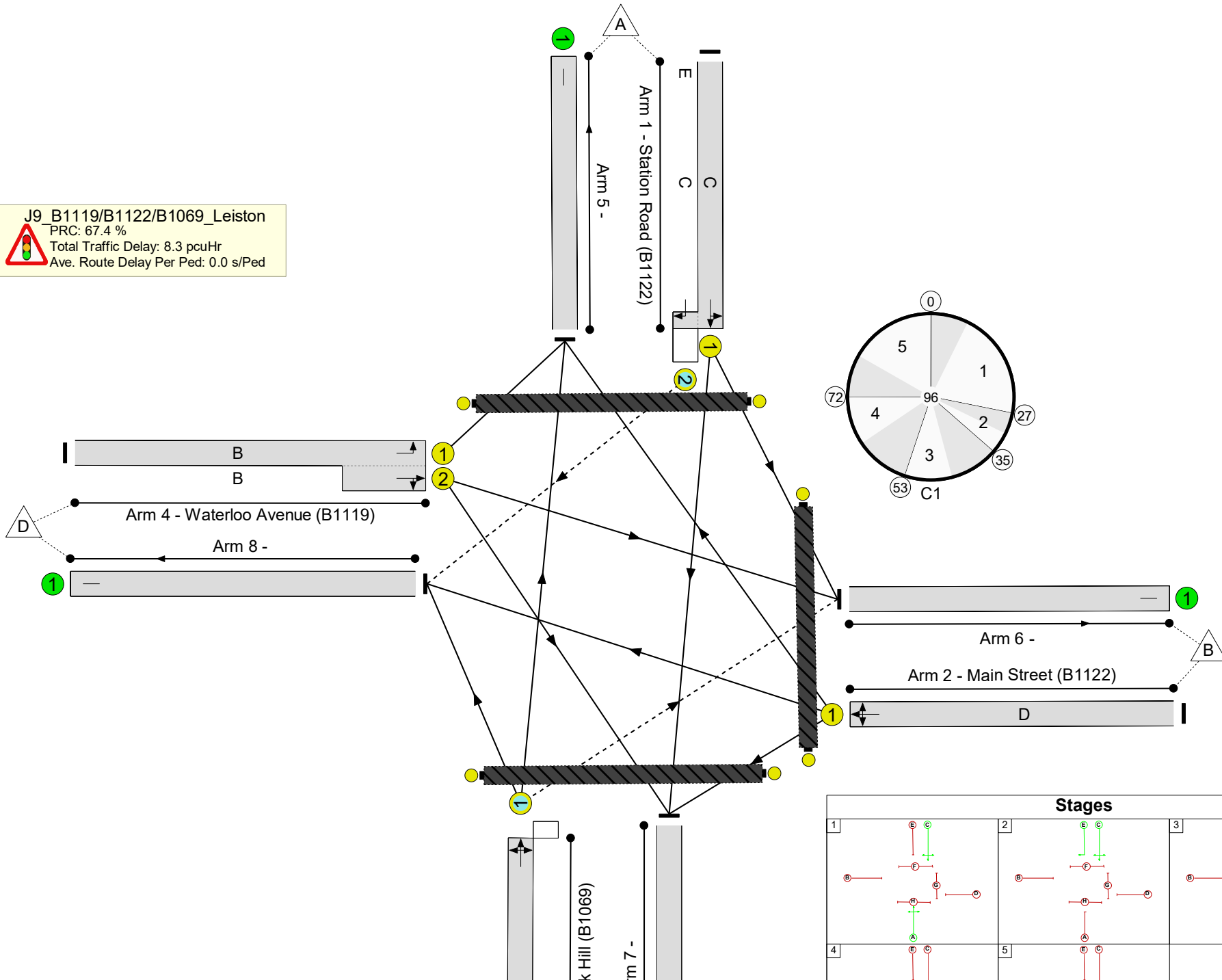


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 67.4 %  
 Total Traffic Delay: 8.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

**Network Results**

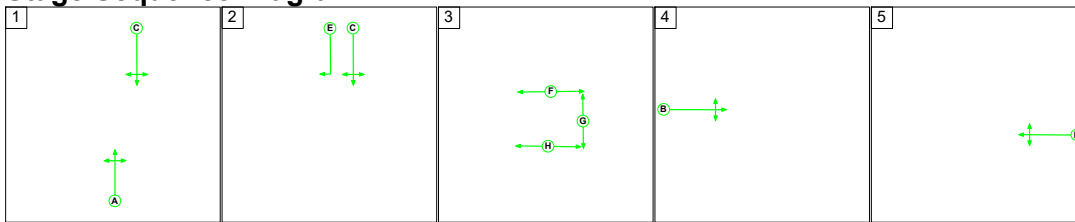
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>53.8%</b>
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>53.8%</b>
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	28	4	195	1800:1800	513+34	35.7 : 35.7%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	16	-	167	1800	319	52.4%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	21	-	206	1803	400	51.4%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	9	-	124	1730:1750	48+182	53.8 : 53.8%
5/1		U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	189	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	136	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 18: '2028 Reference Case 8-9AM' (FG18: '28RC\_8-9AM', Plan 1: '5 Stage Plan')

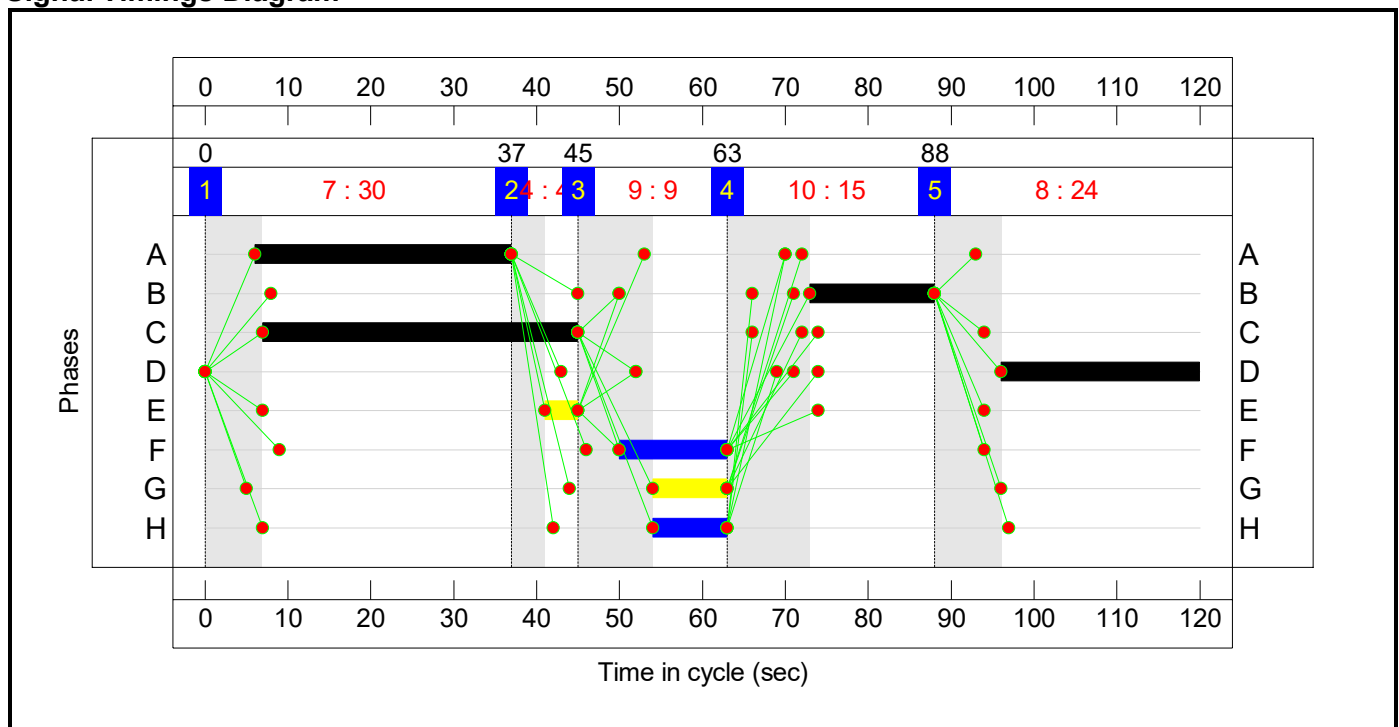
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	30	4	9	15	24
Change Point	0	37	45	63	88

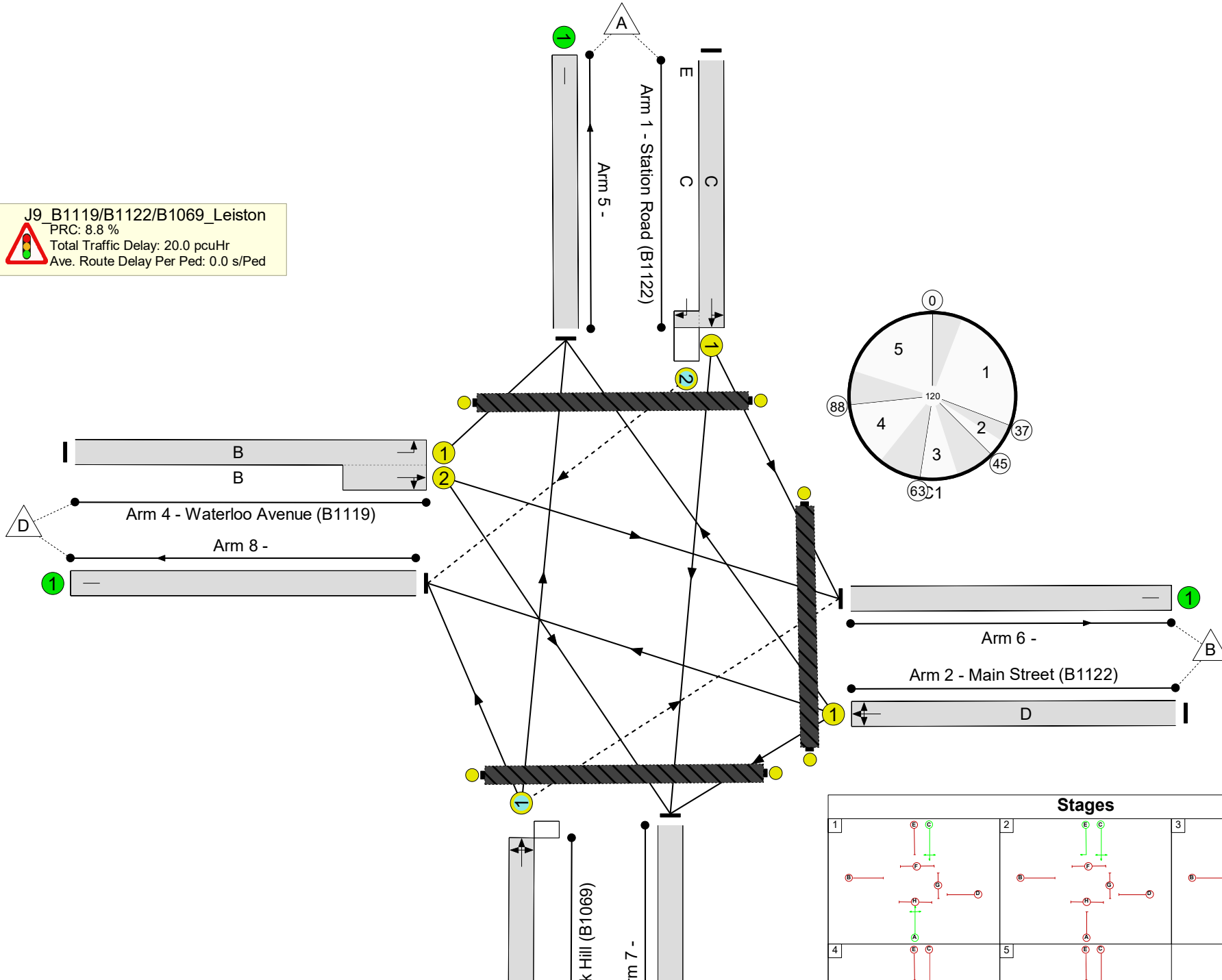
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 8.8 %  
 Total Traffic Delay: 20.0 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	38	4	335	1800:1800	550+37	57.1 : 57.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	24	-	299	1800	375	79.7%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	31	-	302	1796	365	82.7%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	15	-	215	1730:1753	46+222	80.0 : 80.0%
5/1		U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

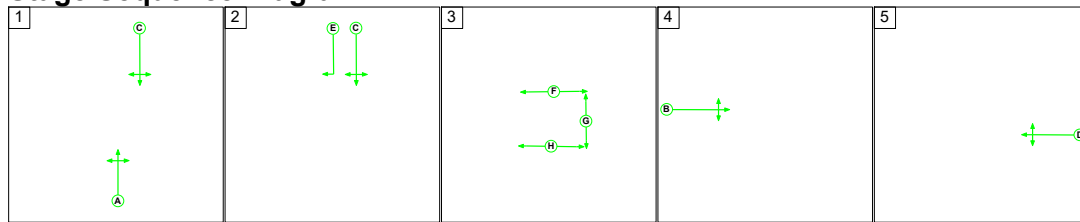




Full Input Data And Results

Scenario 19: '2028 Reference Case 3-4PM' (FG19: '28RC\_3-4PM', Plan 1: '5 Stage Plan')

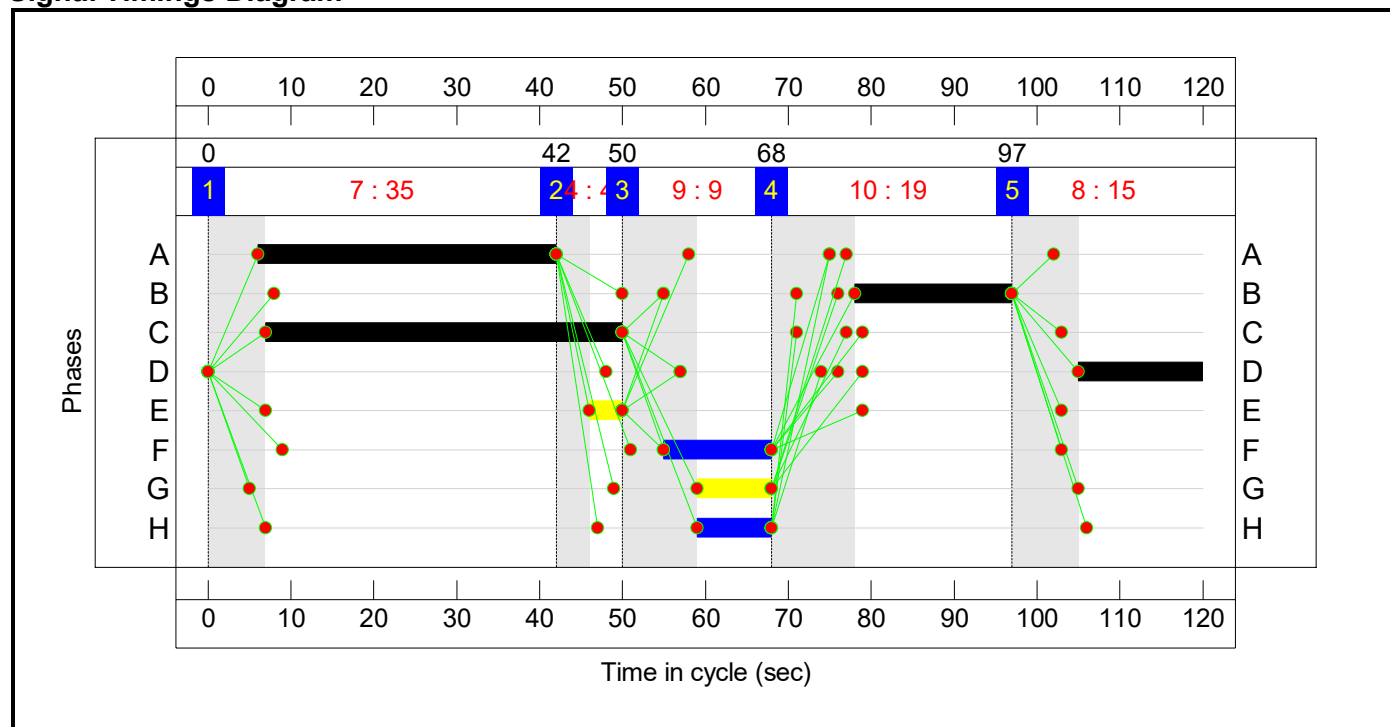
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	35	4	9	19	15
Change Point	0	42	50	68	97

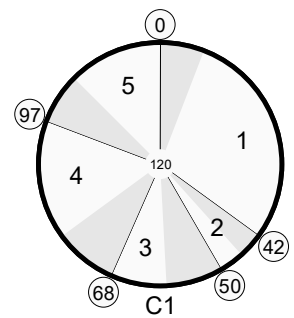
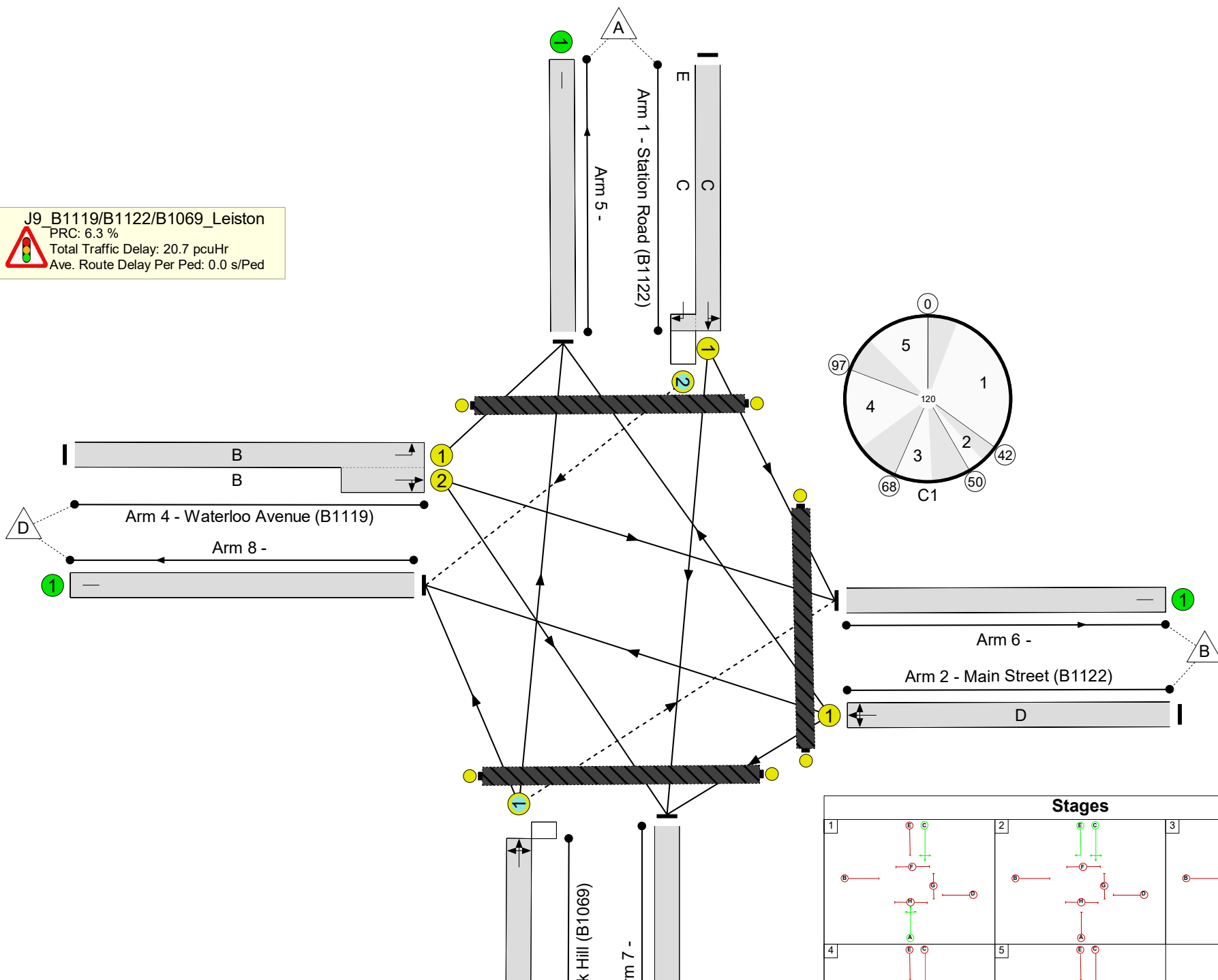
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 6.3 %  
 Total Traffic Delay: 20.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Stages		
1	2	3
4	5	

The table shows five stages of traffic signal control. Each stage is represented by a diagram with colored arrows (red, green) indicating which traffic movements are permitted. Stage 1 shows a red arrow from the left and green arrows for the top and bottom. Stage 2 shows a red arrow from the left and green arrows for the right and bottom. Stage 3 shows a red arrow from the left and green arrows for the top and right. Stage 4 shows a red arrow from the left and green arrows for the top and bottom. Stage 5 shows a red arrow from the left and green arrows for the right and bottom.

Full Input Data And Results

Network Results

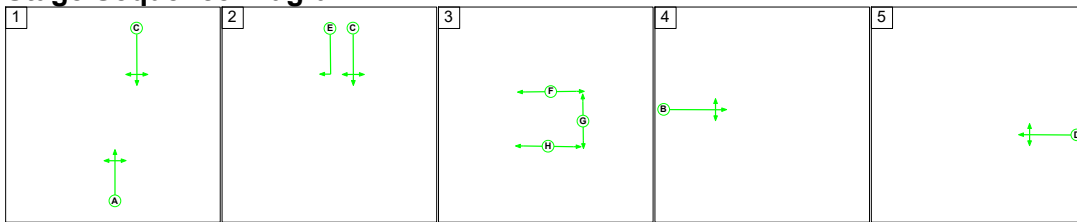
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.7%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	84.7%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	43	4	360	1800:1800	574+90	54.2 : 54.2%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	15	-	200	1800	240	83.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	36	-	325	1790	391	83.1%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	19	-	269	1730:1755	40+278	84.7 : 84.7%
5/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	312	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	332	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 20: '2028 Reference Case 5-6PM' (FG20: '28RC\_5-6PM', Plan 1: '5 Stage Plan')

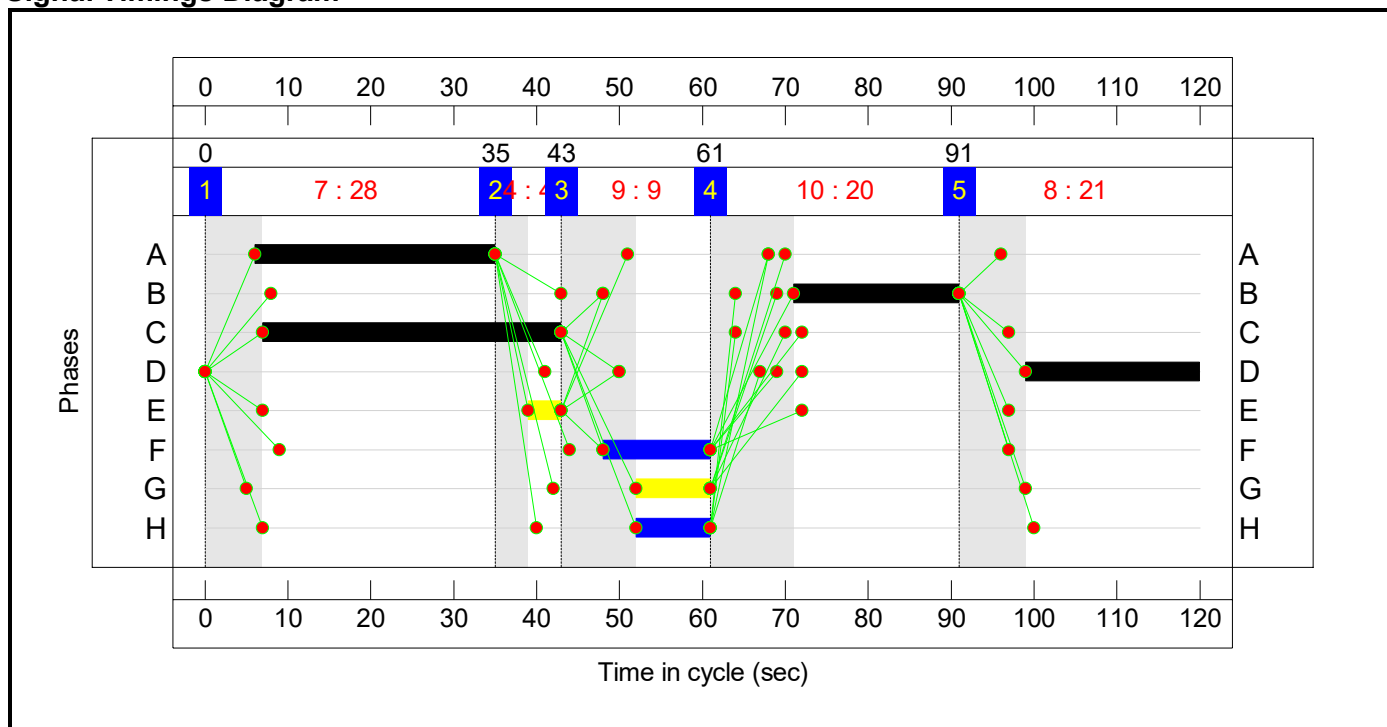
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	28	4	9	20	21
Change Point	0	35	43	61	91

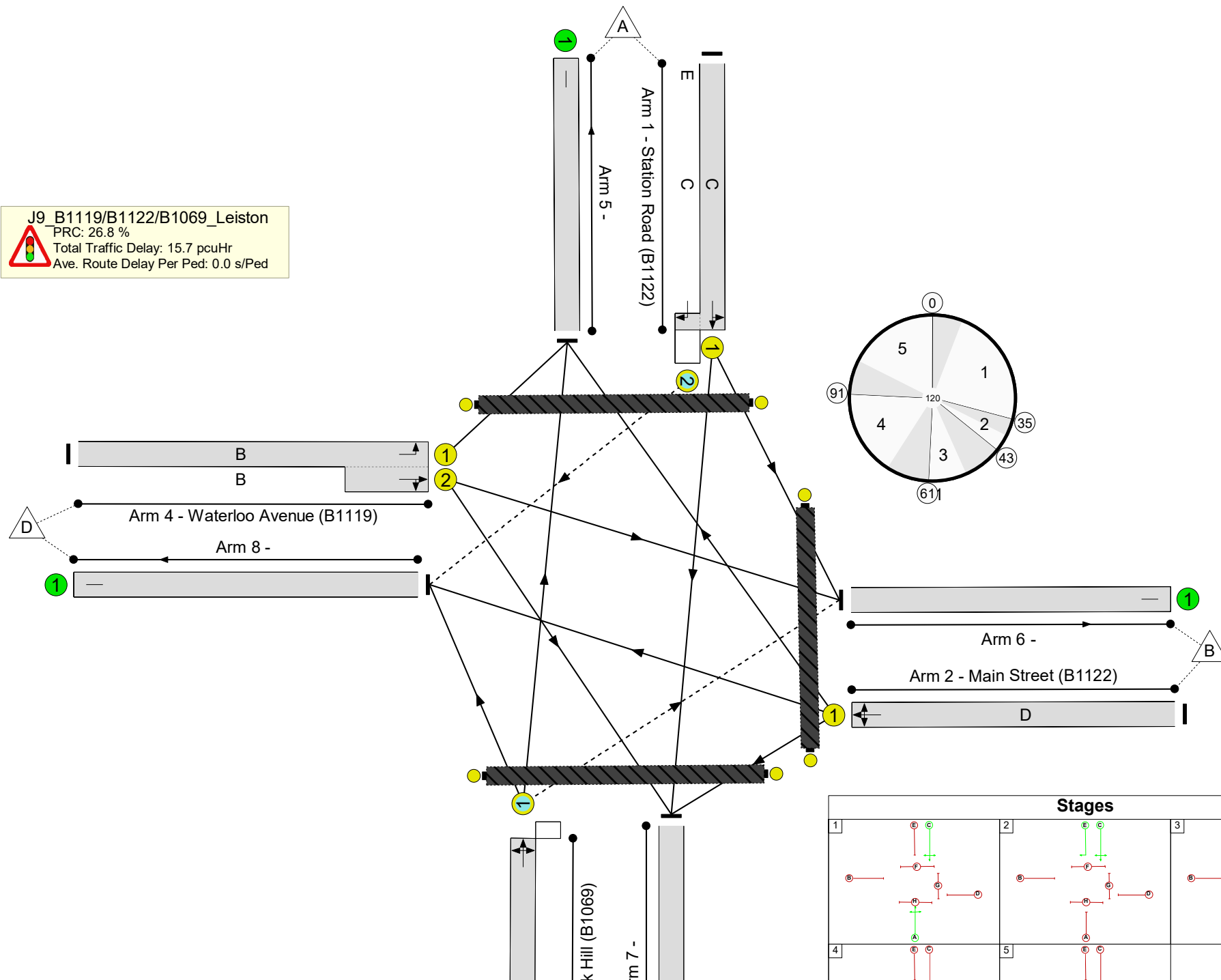
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 26.8 %  
 Total Traffic Delay: 15.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

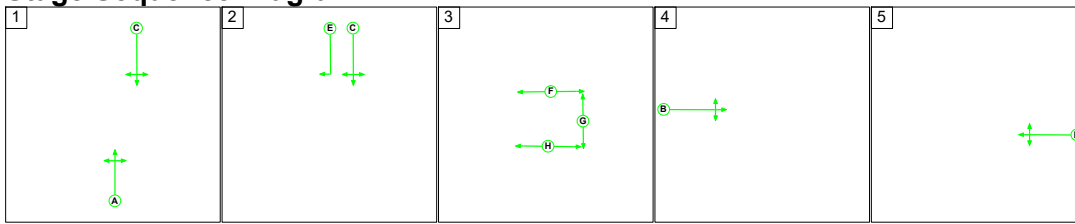
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	71.0%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	71.0%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	36	4	246	1800:1800	444+119	43.7 : 43.7%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	21	-	228	1800	330	69.1%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	29	-	308	1792	438	70.4%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	20	-	237	1730:1754	45+289	71.0 : 71.0%
5/1		U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 21: '2028 Peak Construction 6-7AM' (FG21: '28PC\_6-7AM', Plan 1: '5 Stage Plan')

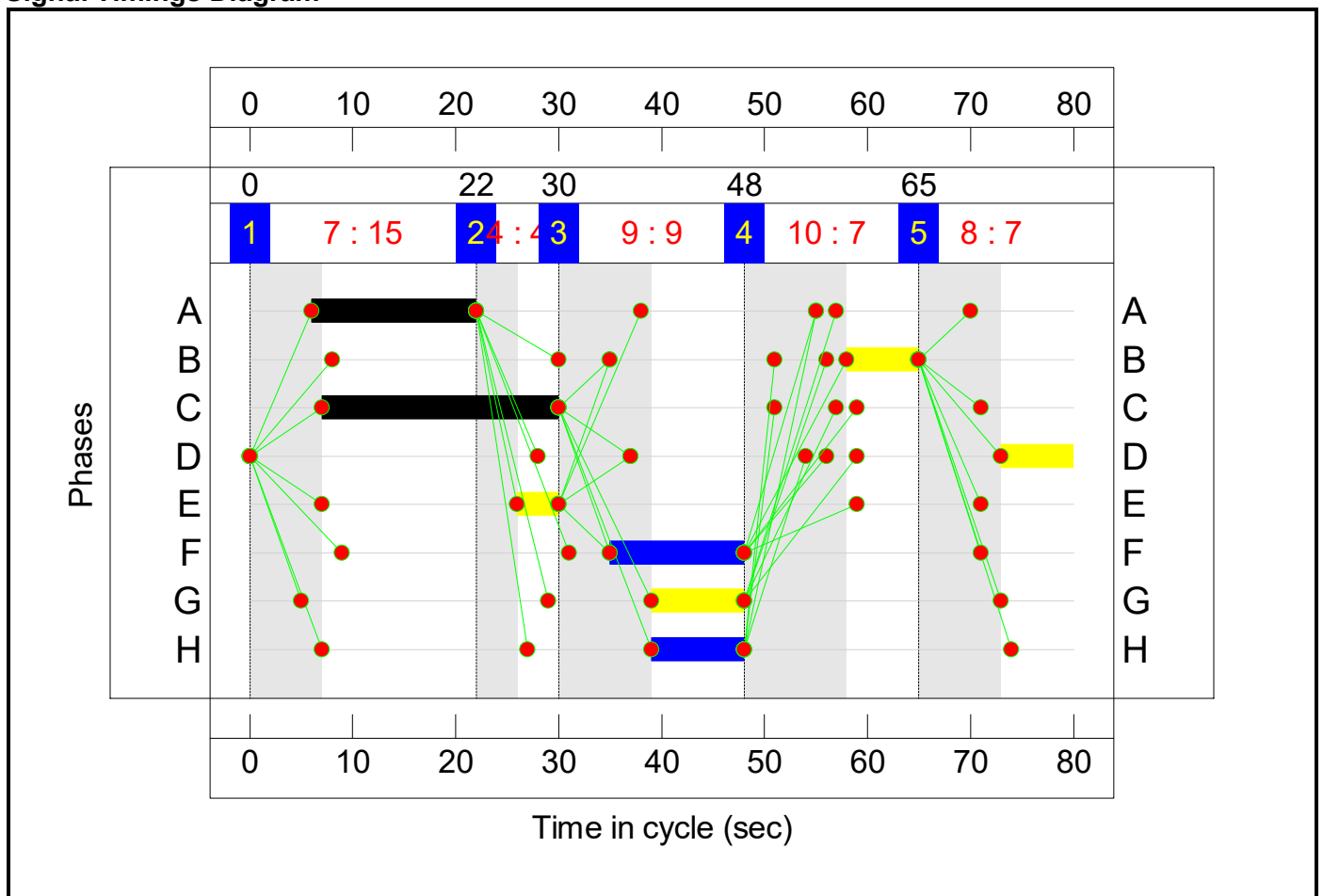
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	15	4	9	7	7
Change Point	0	22	30	48	65

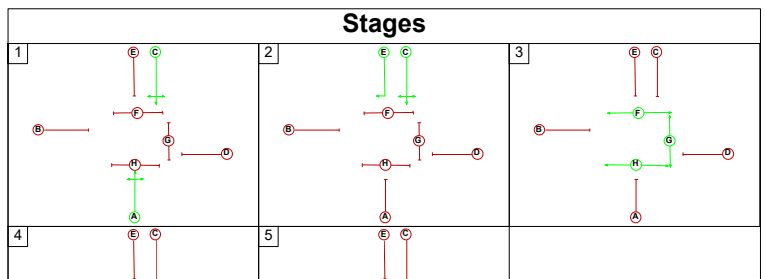
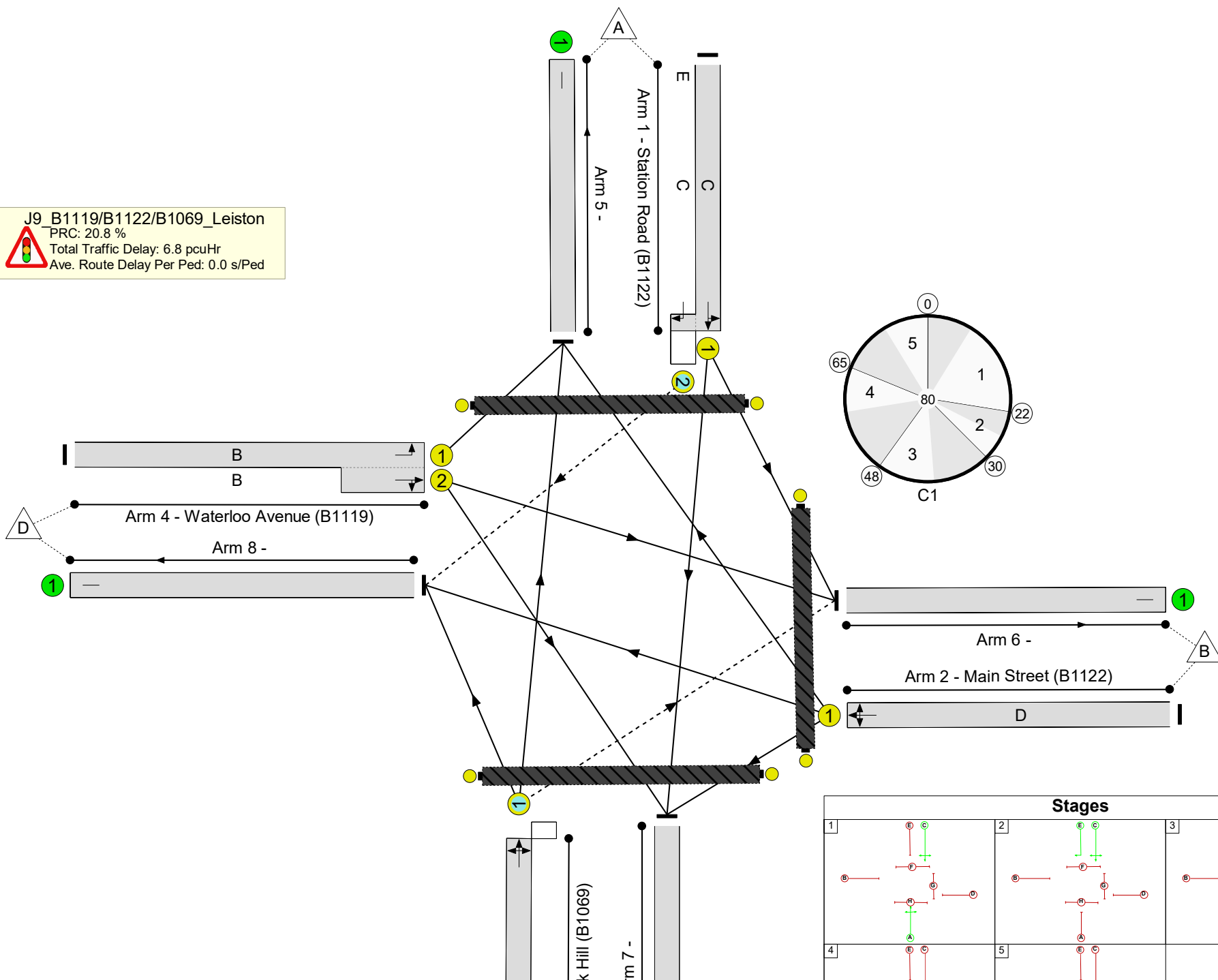
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 20.8 %  
 Total Traffic Delay: 6.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

**Network Results**

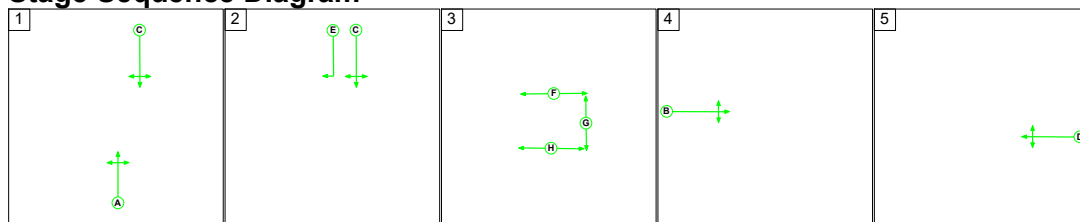
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	74.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	23	4	125	1800:1800	492+52	22.9 : 22.9%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	60	1800	180	33.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	16	-	292	1845	392	74.5%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	109	1730:1748	173+175	30.6 : 32.0%
5/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	95	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	88	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 22: '2028 Peak Construction 7-8AM' (FG22: '28PC\_7-8AM', Plan 1: '5 Stage Plan')

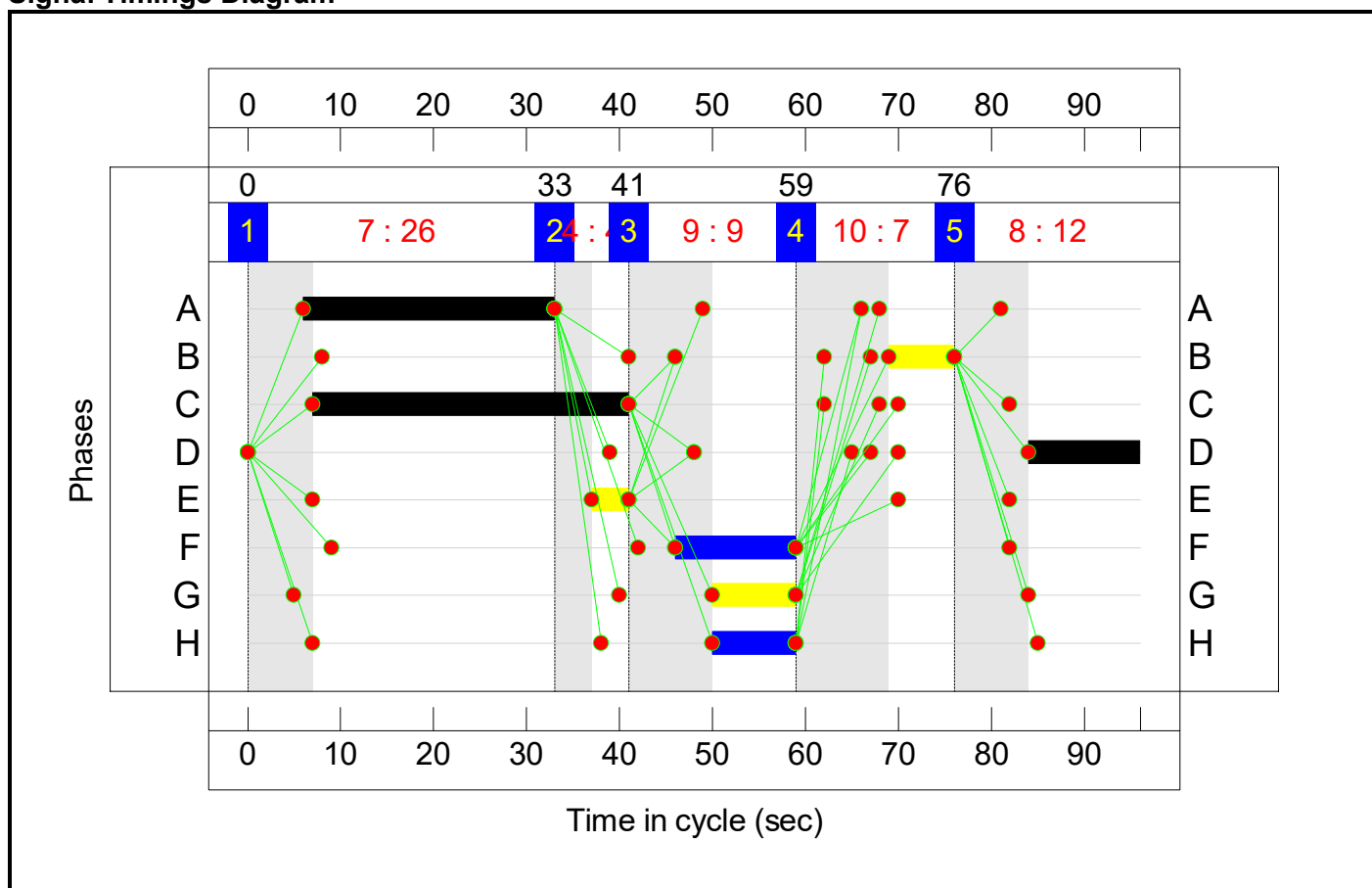
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	26	4	9	7	12
Change Point	0	33	41	59	76

Signal Timings Diagram

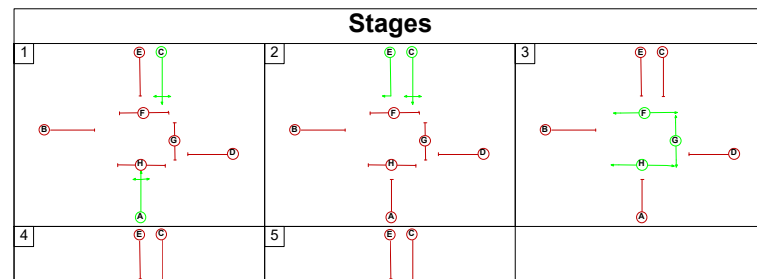
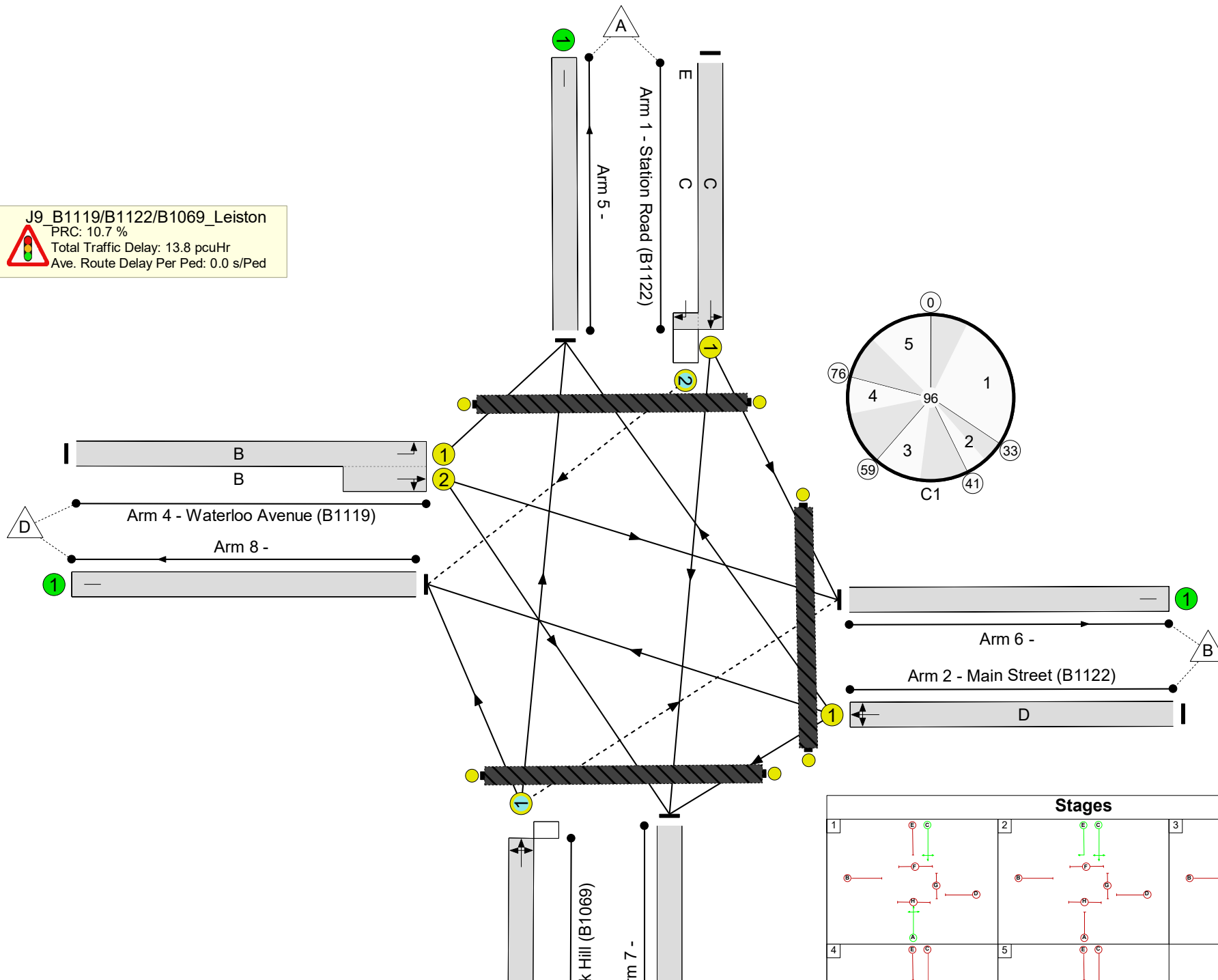




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 10.7 %  
 Total Traffic Delay: 13.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

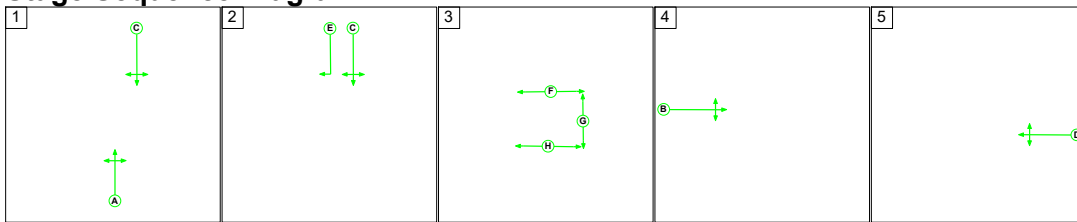
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.3%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	81.3%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	34	4	252	1800:1800	610+50	38.2 : 38.2%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	12	-	162	1800	244	66.5%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	27	-	435	1835	535	81.3%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	177	1730:1752	107+146	69.9 : 69.9%
5/1		U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	229	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	136	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 23: '2028 Peak Construction 8-9AM' (FG23: '28PC\_8-9AM', Plan 1: '5 Stage Plan')

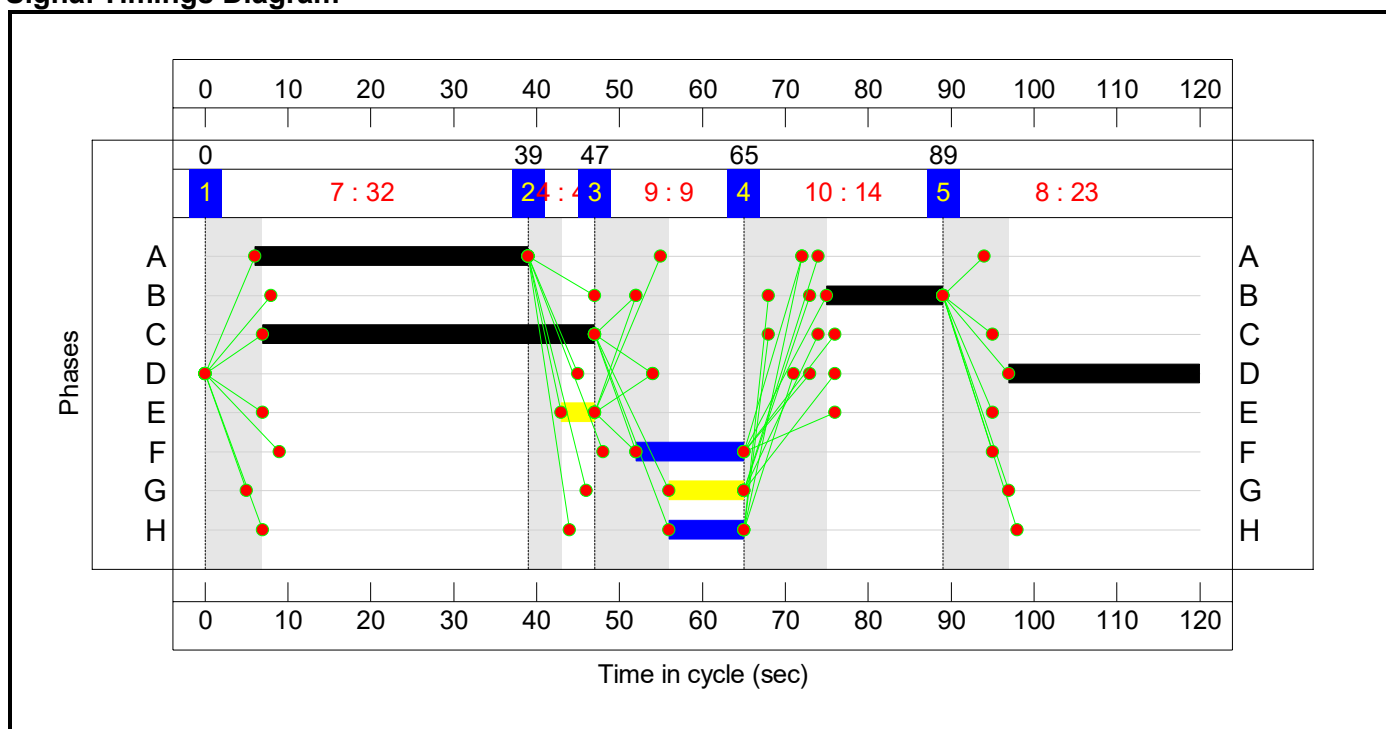
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	32	4	9	14	23
Change Point	0	39	47	65	89

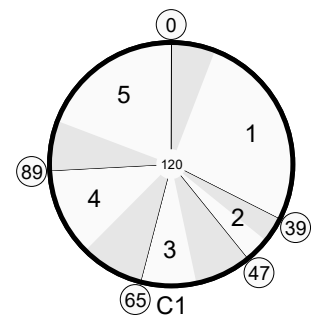
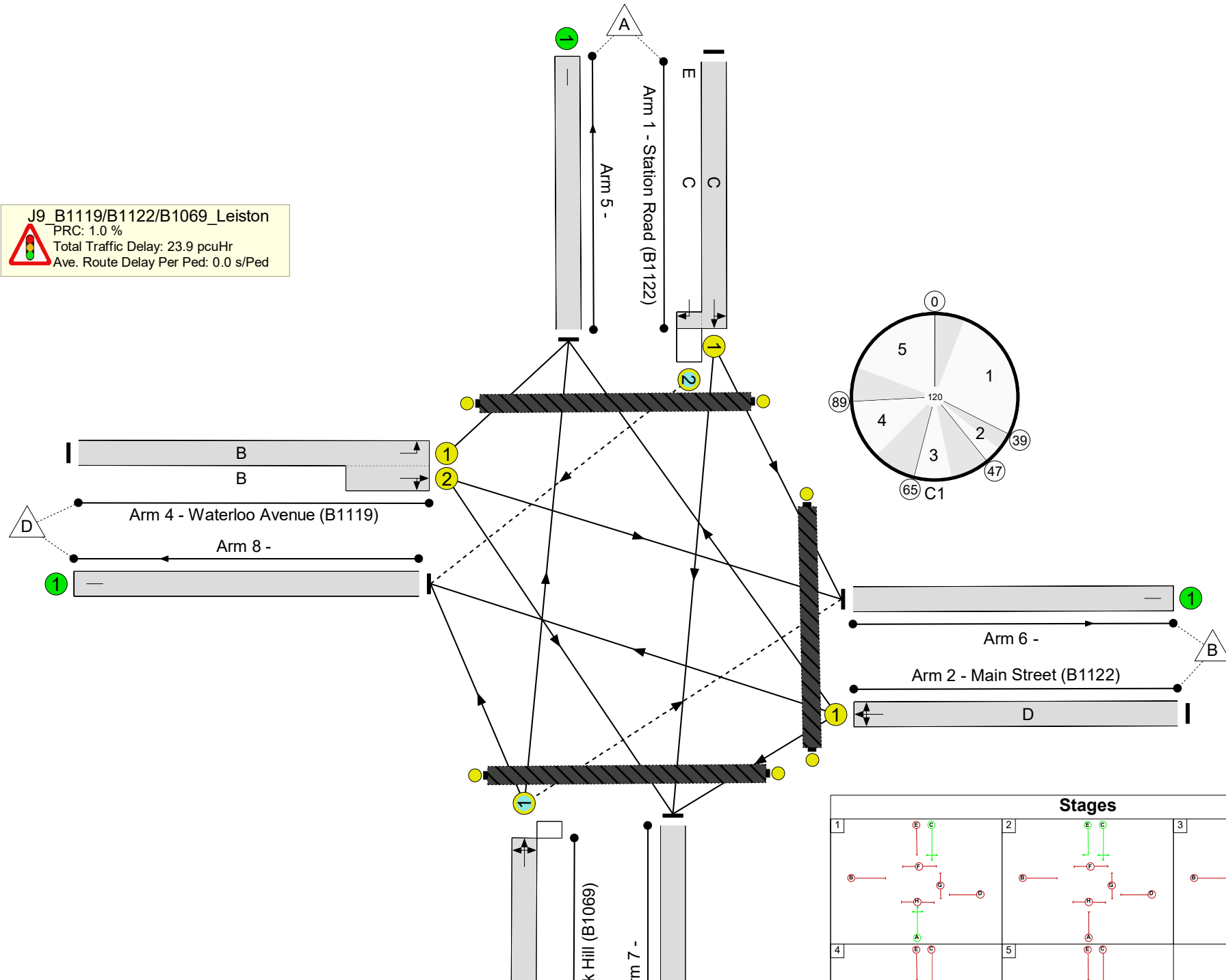
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 1.0 %  
 Total Traffic Delay: 23.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Stages		
1	2	3
4	5	

The table displays five stages of traffic signal control. Each stage is represented by a diagram showing the status of traffic lights (red, green, yellow) and pedestrian crossings (A, B, D) for the intersection arms.

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	40	4	358	1800:1800	569+48	58.0 : 58.0%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	23	-	300	1800	360	83.3%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	33	-	366	1808	427	85.7%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	14	-	248	1730:1753	75+203	89.1 : 89.1%
5/1		U	N/A	N/A	-		-	-	-	398	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

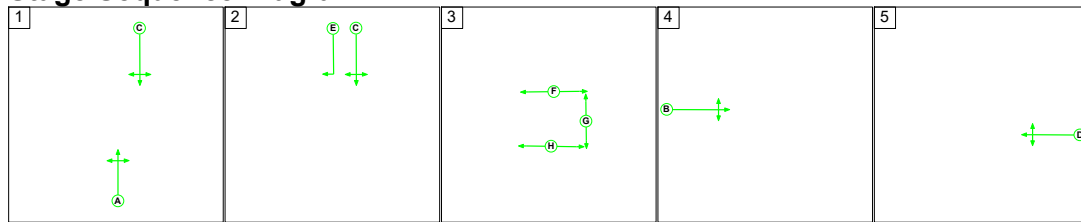




Full Input Data And Results

Scenario 24: '2028 Peak Construction 3-4PM' (FG24: '28PC\_3-4PM', Plan 1: '5 Stage Plan')

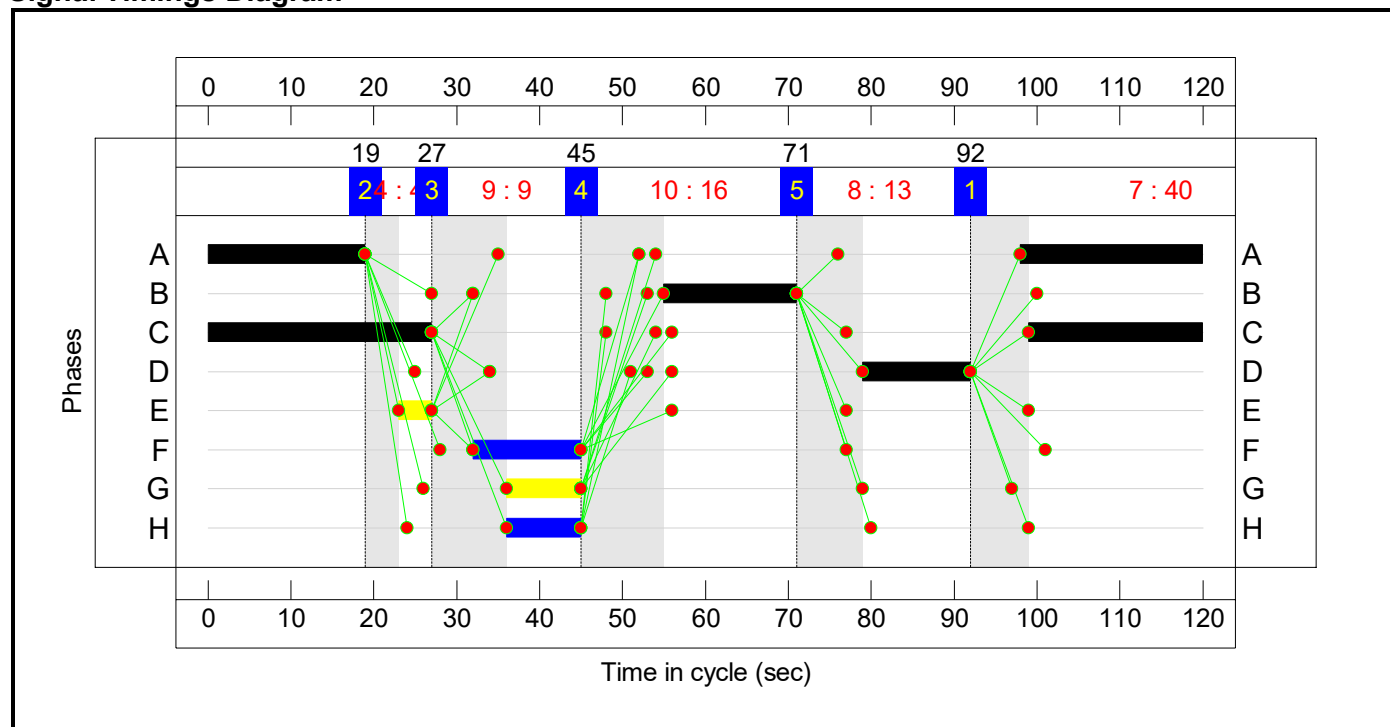
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	40	4	9	16	13
Change Point	92	19	27	45	71

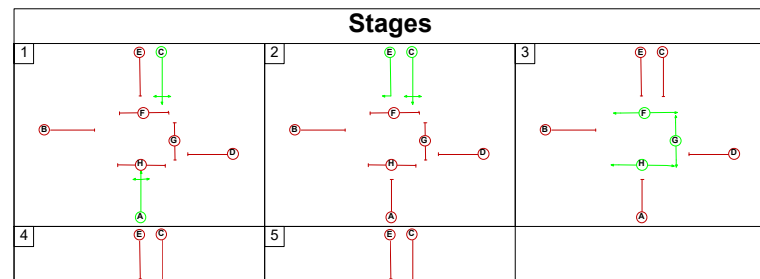
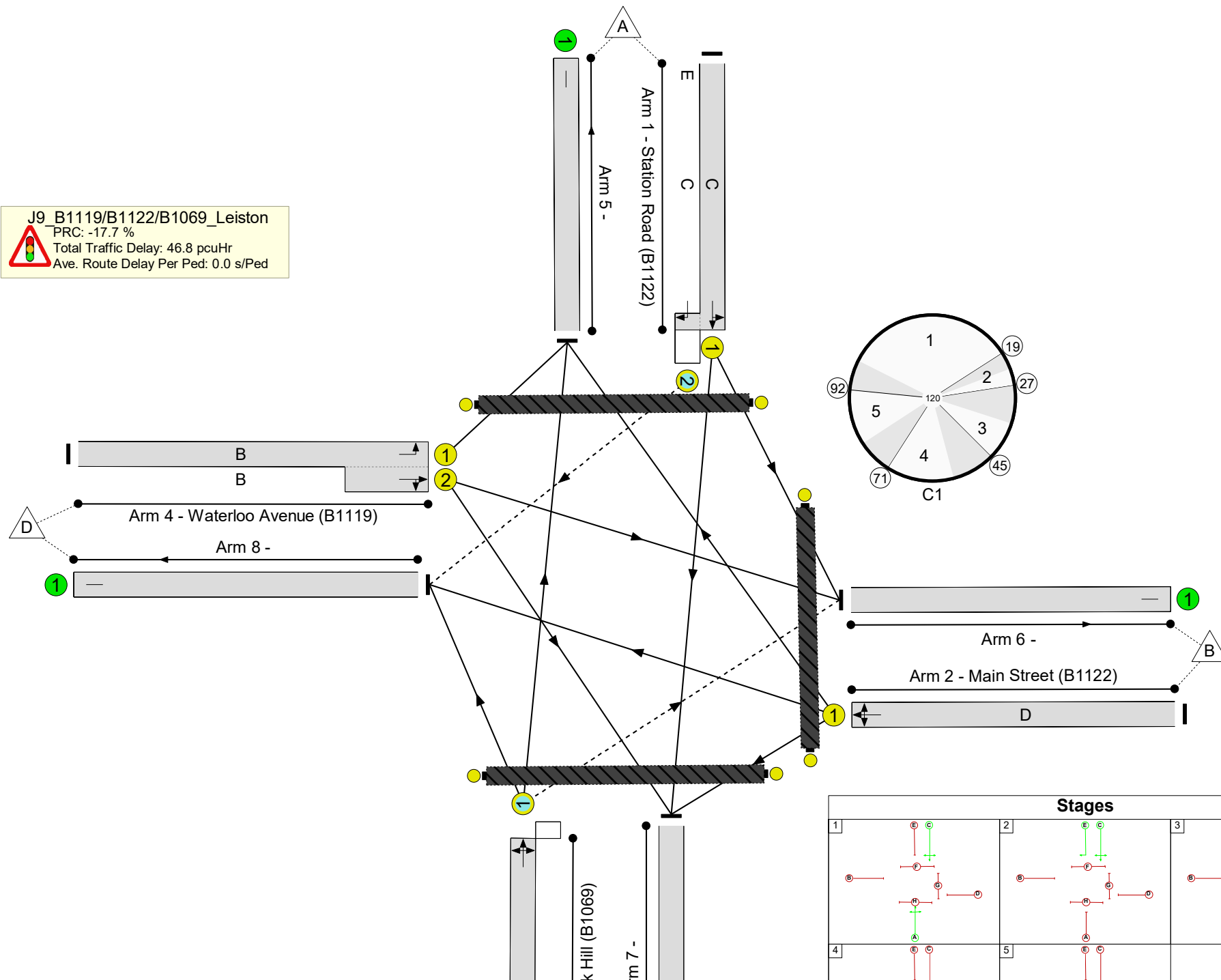
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: -17.7 %  
 Total Traffic Delay: 46.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

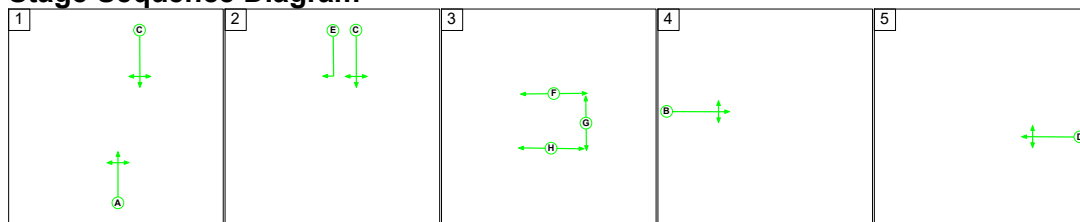
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>105.9%</b>
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	<b>105.9%</b>
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	48	4	524	1800:1800	594+149	70.6 : 70.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	13	-	195	1800	210	92.9%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	41	-	349	1795	330	105.9%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	16	-	295	1730:1756	61+231	101.0 : 101.0%
5/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 25: '2028 Peak Construction 5-6PM' (FG25: '28PC\_5-6PM', Plan 1: '5 Stage Plan')

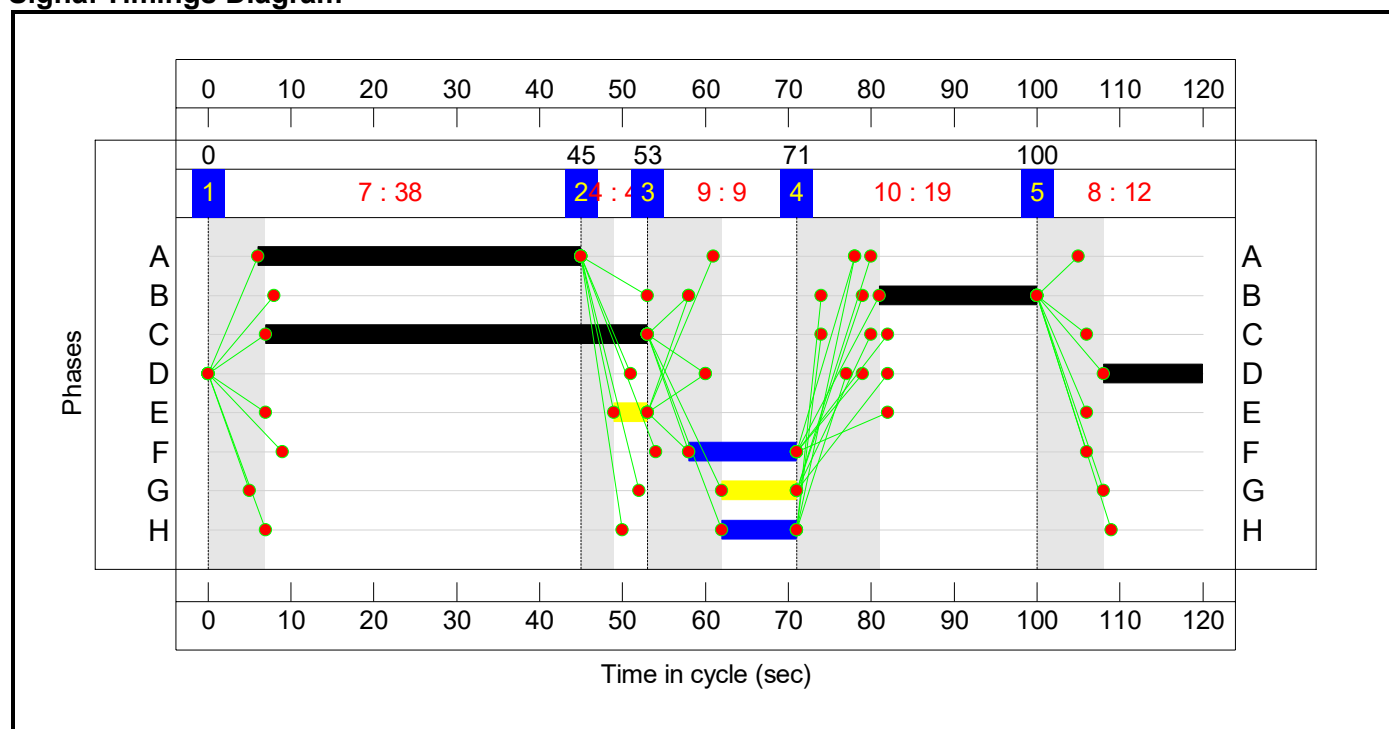
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	38	4	9	19	12
Change Point	0	45	53	71	100

Signal Timings Diagram

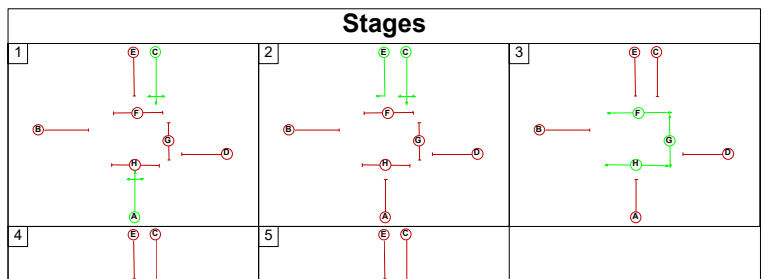
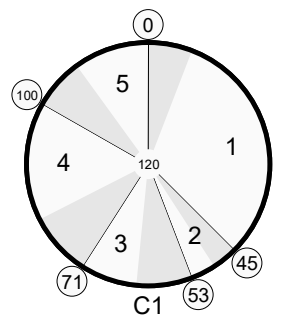
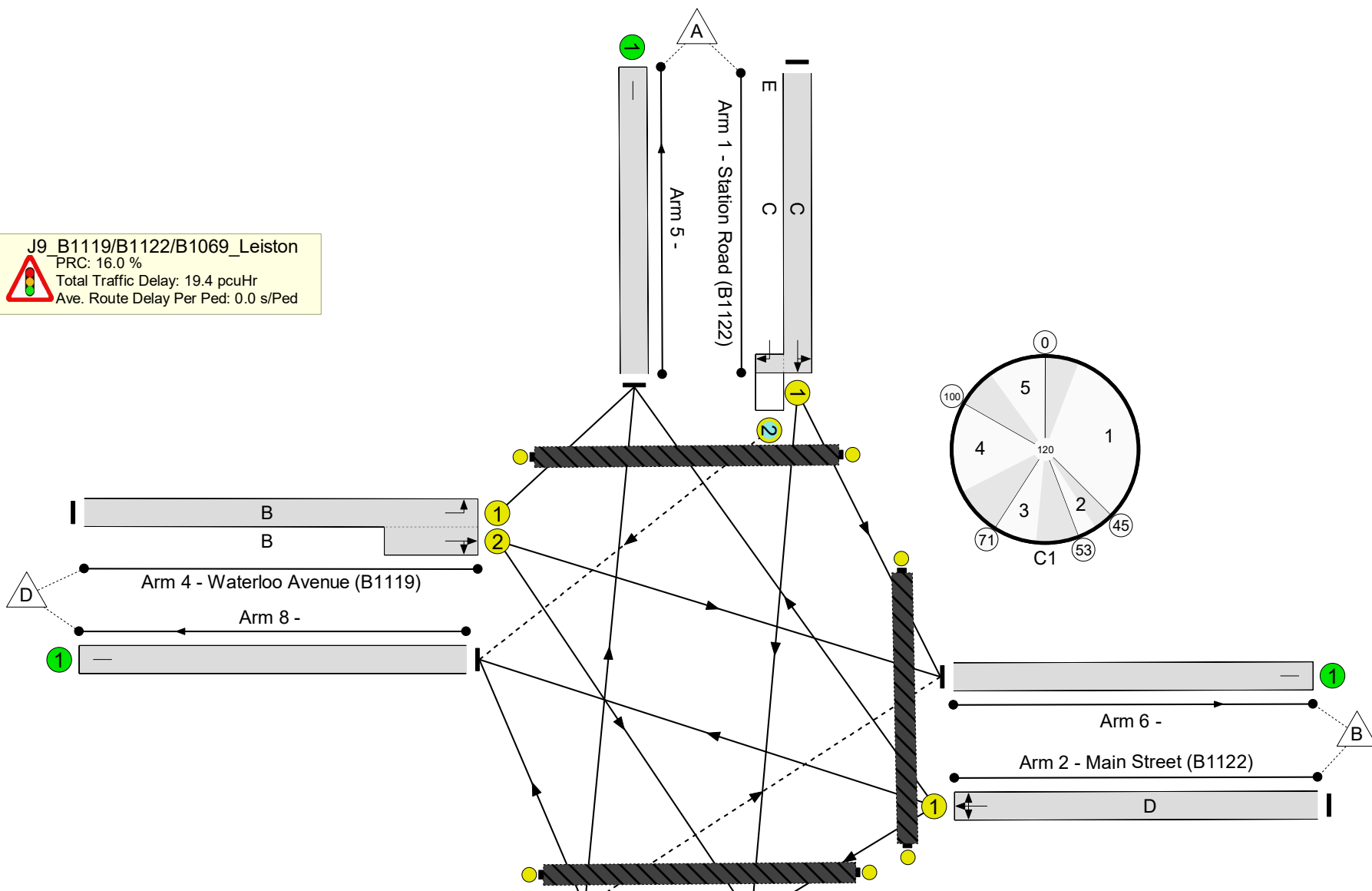


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 16.0 %  
 Total Traffic Delay: 19.4 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

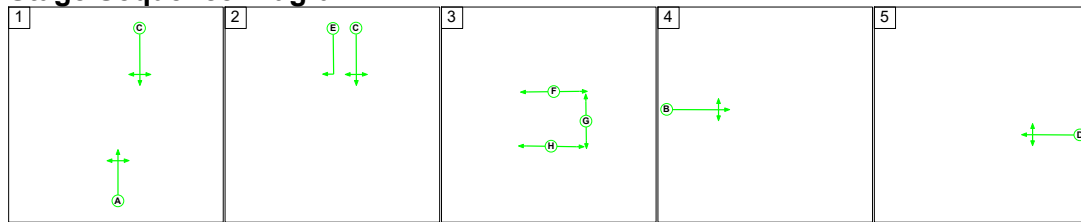
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	46	4	482	1800:1800	541+156	69.1 : 69.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	12	-	138	1800	195	70.8%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	39	-	423	1799	545	77.6%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	19	-	252	1730:1754	63+268	76.1 : 76.1%
5/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 26: '2034 Reference Case 6-7AM' (FG26: '34RC\_6-7AM', Plan 1: '5 Stage Plan')

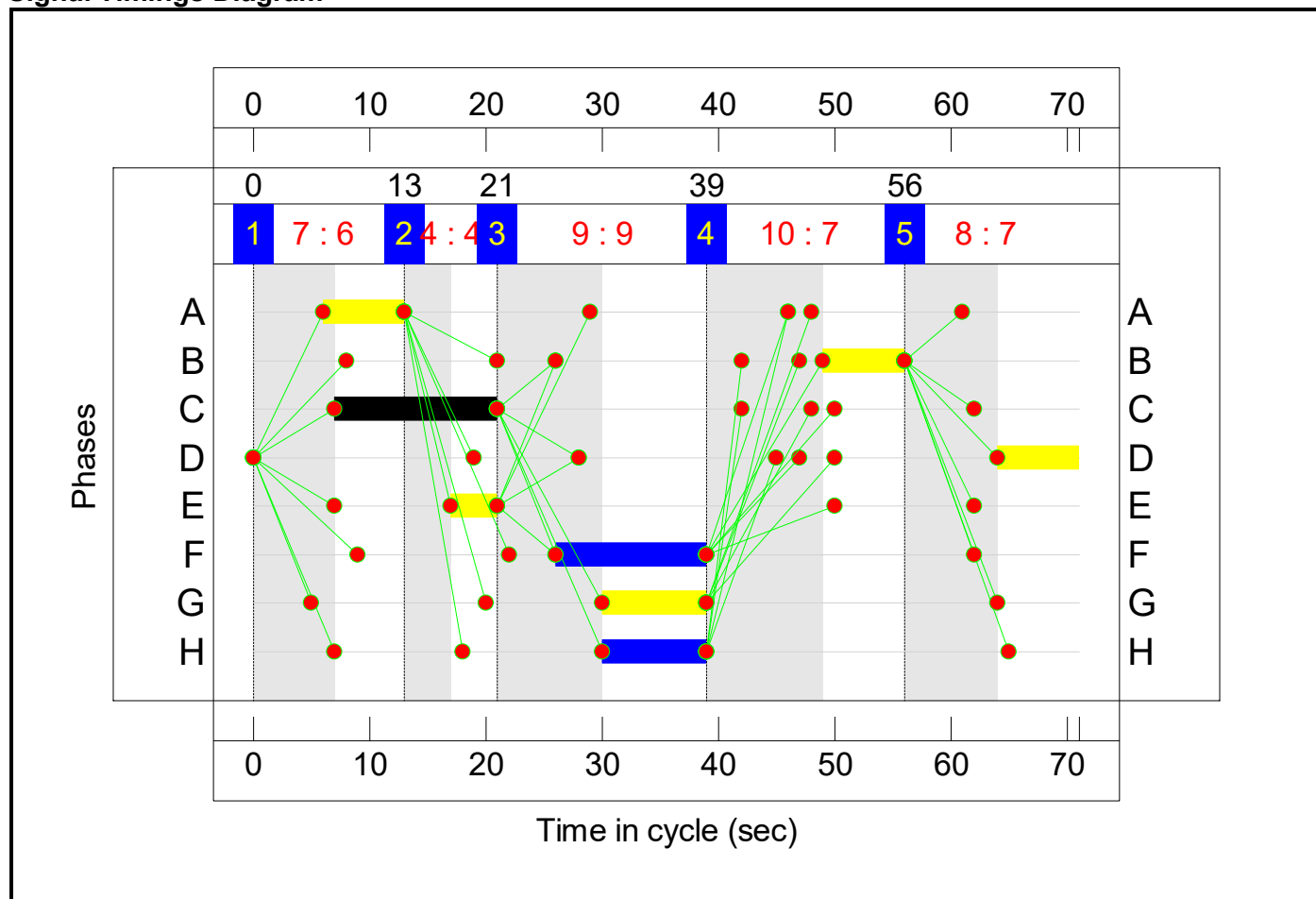
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

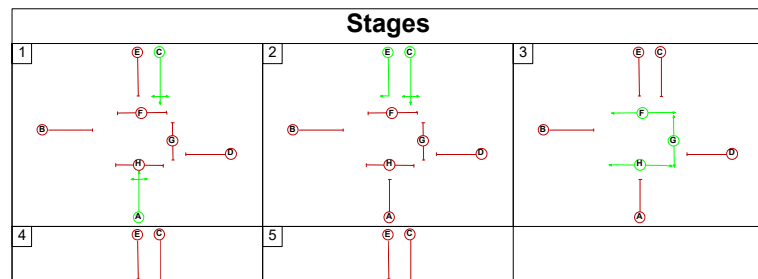
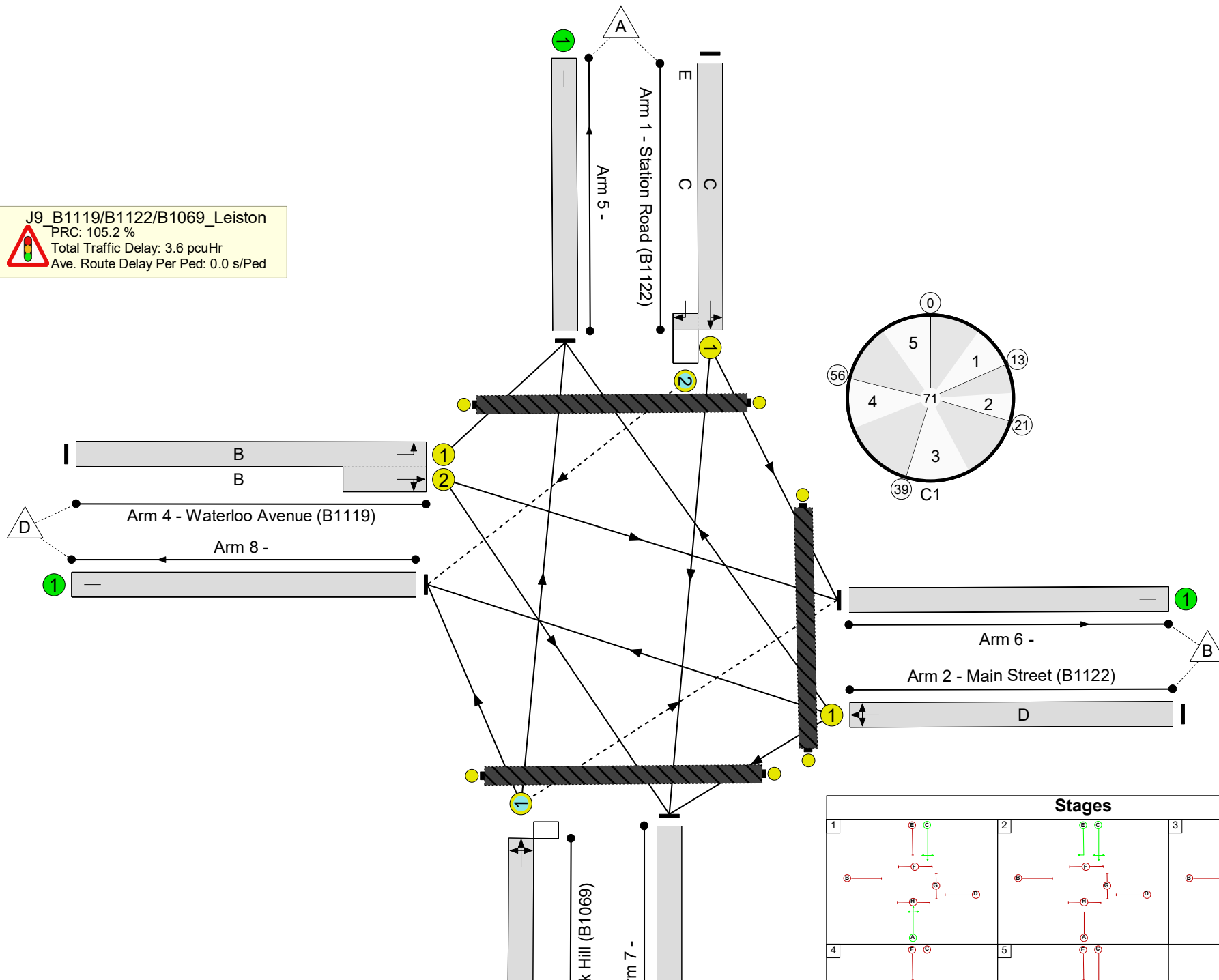
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 105.2 %  
 Total Traffic Delay: 3.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	43.9%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	43.9%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	84	1800:1800	345+41	21.7 : 21.7%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	68	1800	203	33.5%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	89	1801	203	43.9%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	86	1730:1746	29+197	38.1 : 38.1%
5/1		U	N/A	N/A	-		-	-	-	86	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

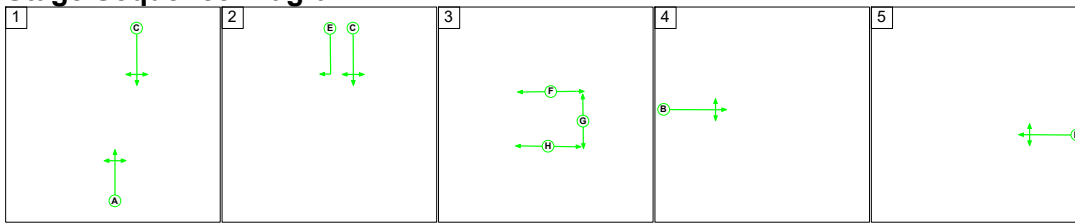




Full Input Data And Results

Scenario 27: '2034 Reference Case 7-8AM' (FG27: '34RC\_7-8AM', Plan 1: '5 Stage Plan')

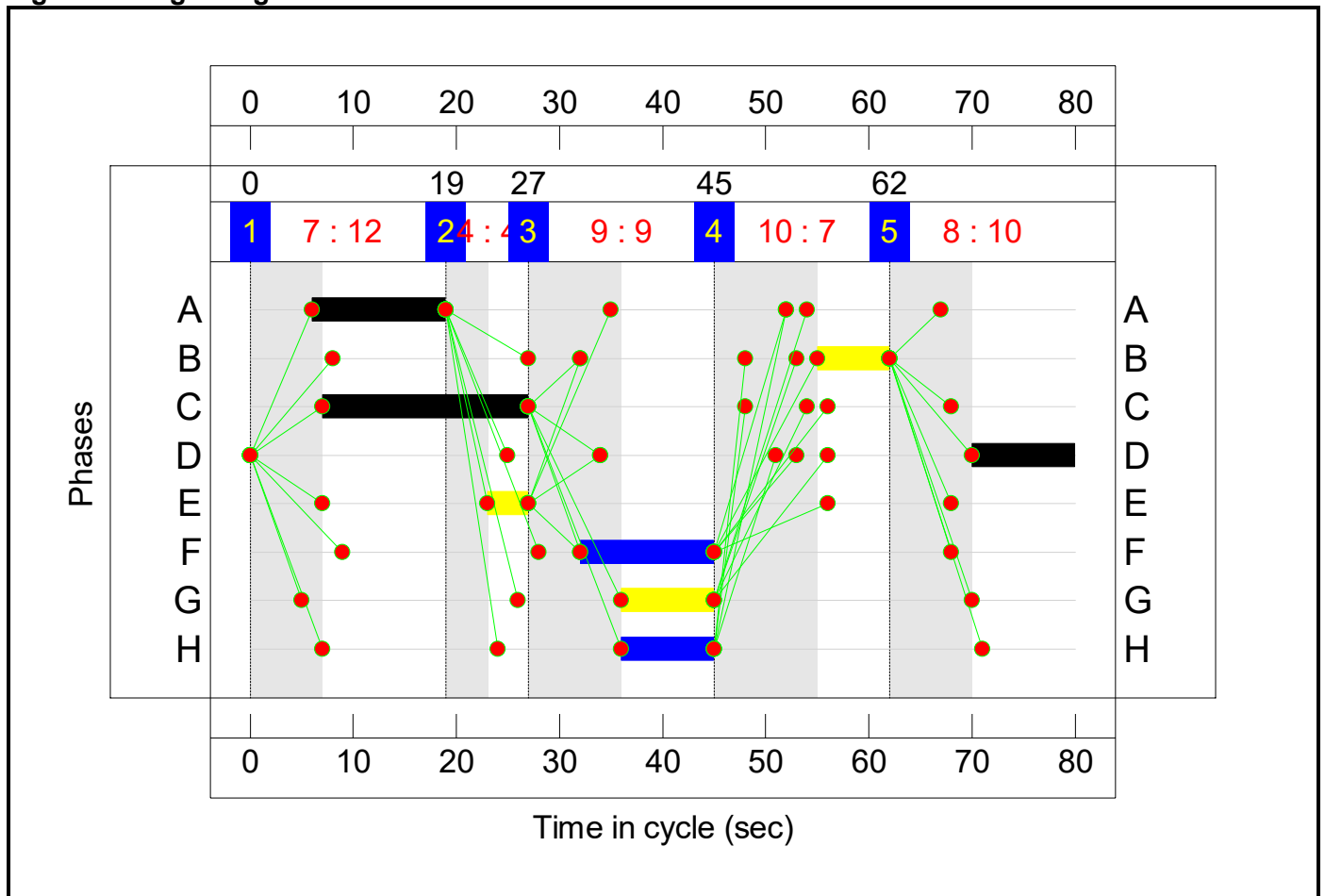
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	12	4	9	7	10
Change Point	0	19	27	45	62

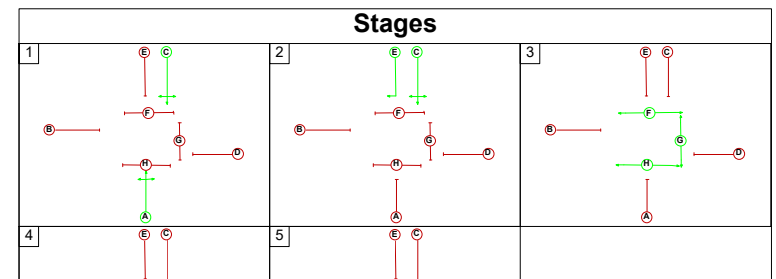
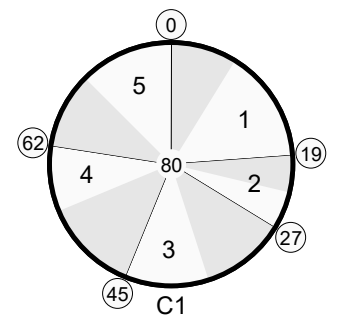
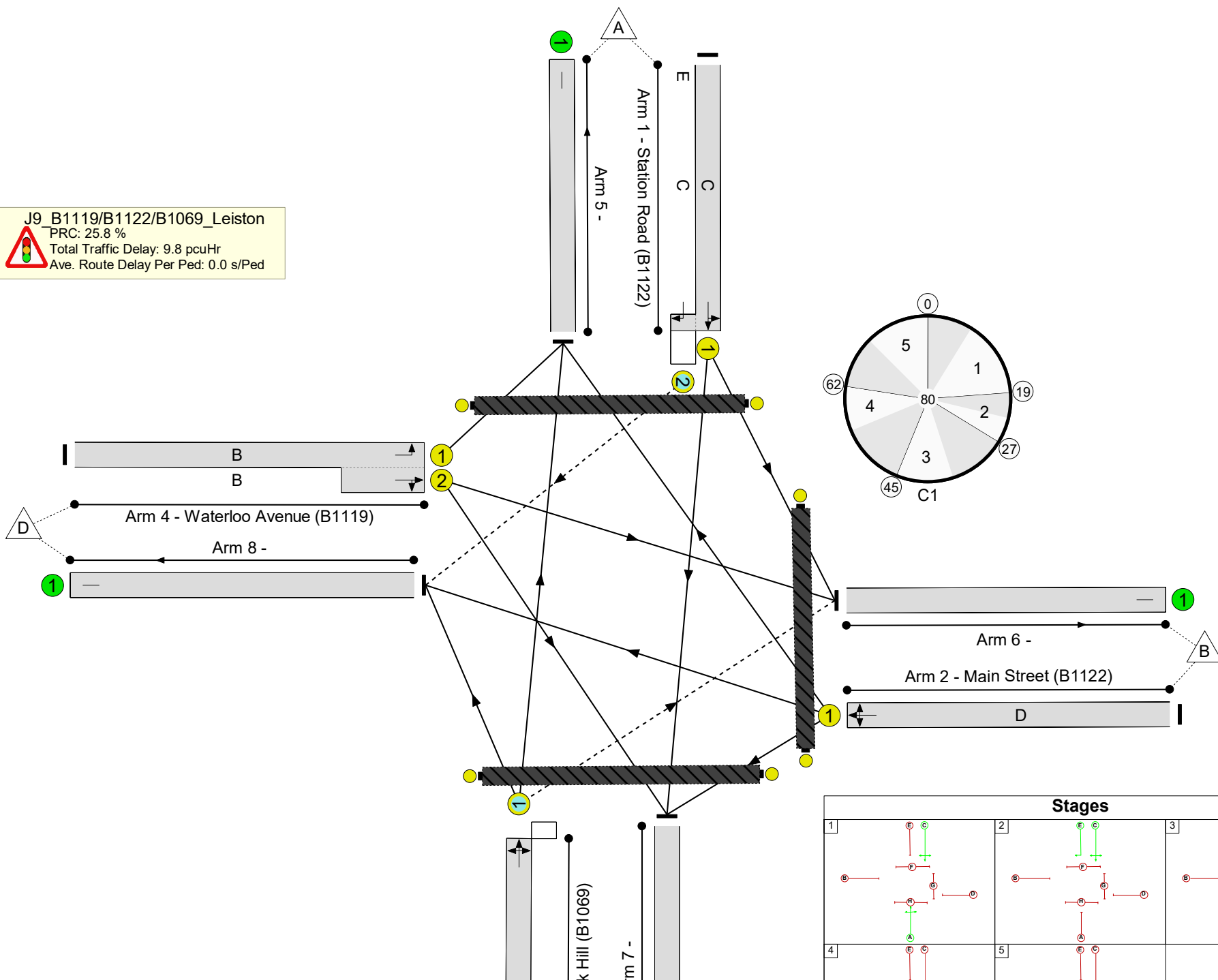
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 25.8 %  
 Total Traffic Delay: 9.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

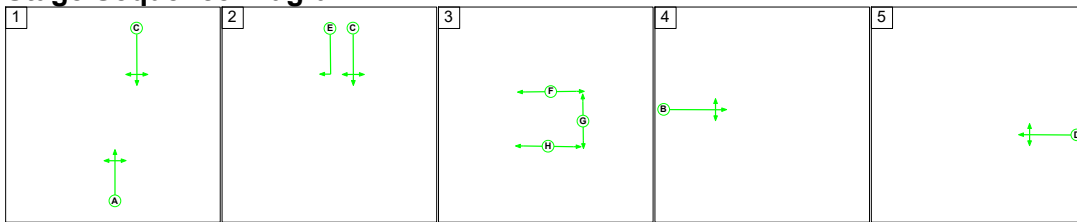
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	20	4	203	1800:1800	443+33	42.7 : 42.7%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	10	-	177	1800	248	71.5%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	13	-	218	1805	311	70.0%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	138	1730:1750	47+175	62.3 : 62.3%
5/1		U	N/A	N/A	-		-	-	-	226	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 28: '2034 Reference Case 8-9AM' (FG28: '34RC\_8-9AM', Plan 1: '5 Stage Plan')

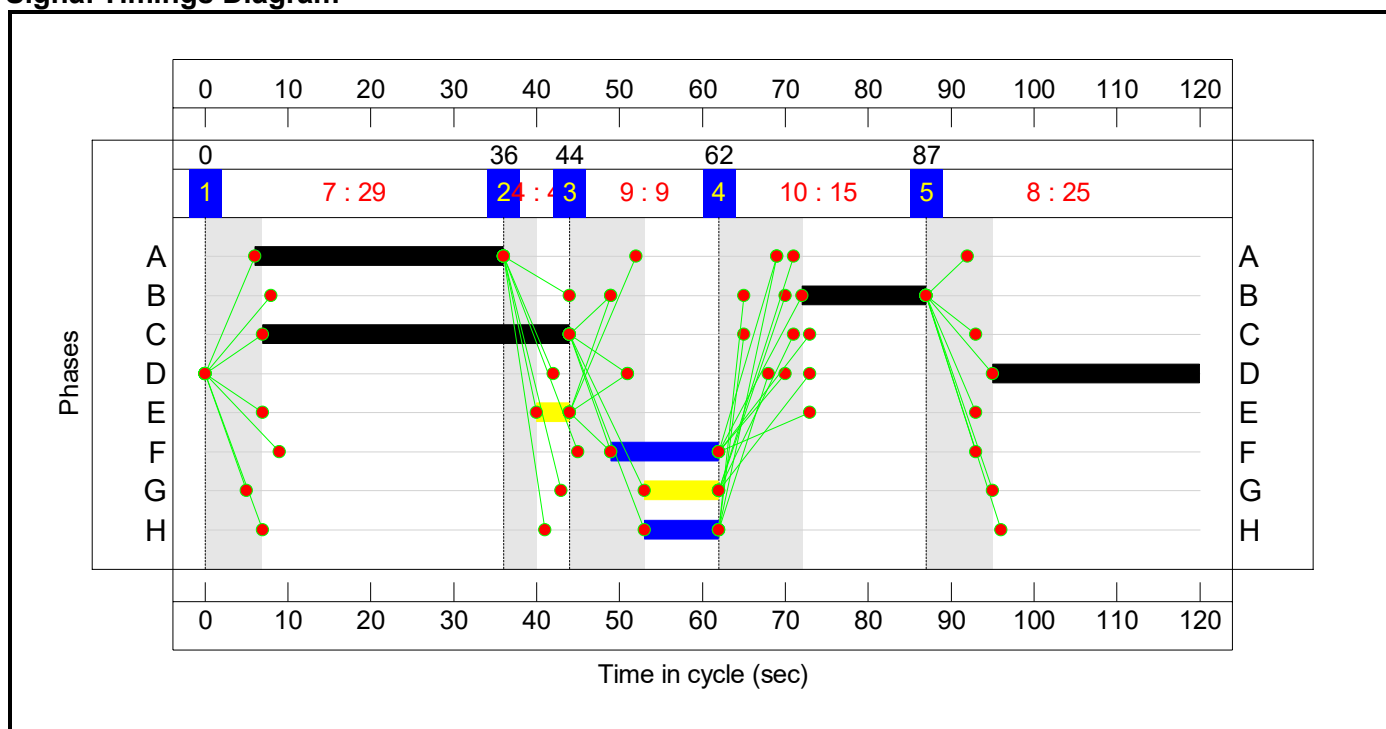
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	29	4	9	15	25
Change Point	0	36	44	62	87

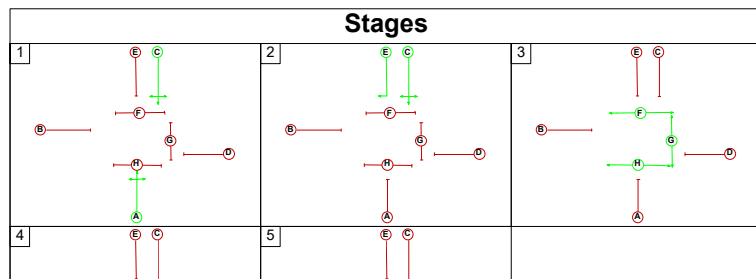
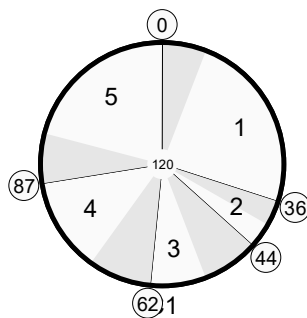
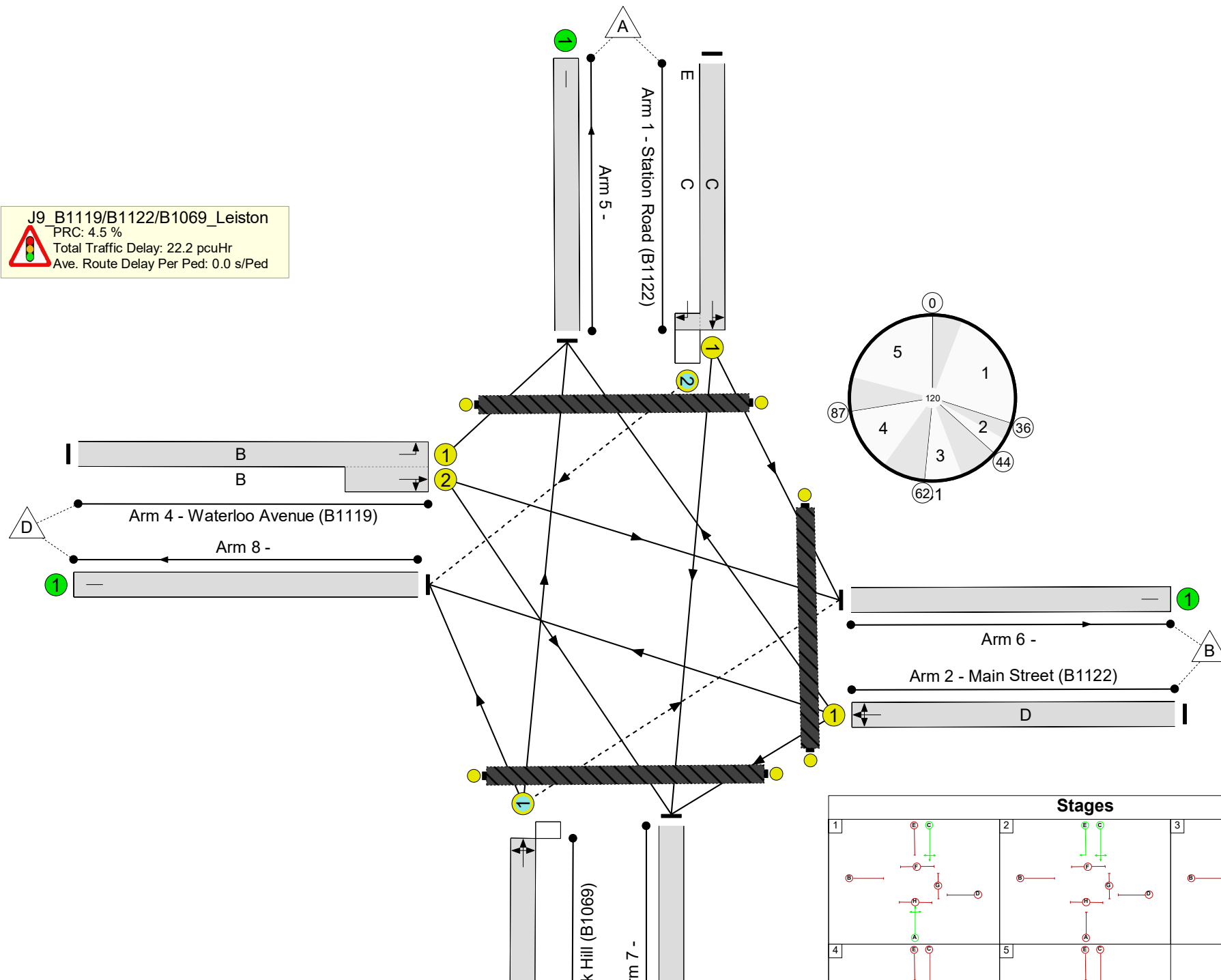
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 4.5 %  
 Total Traffic Delay: 22.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped





Full Input Data And Results

Network Results

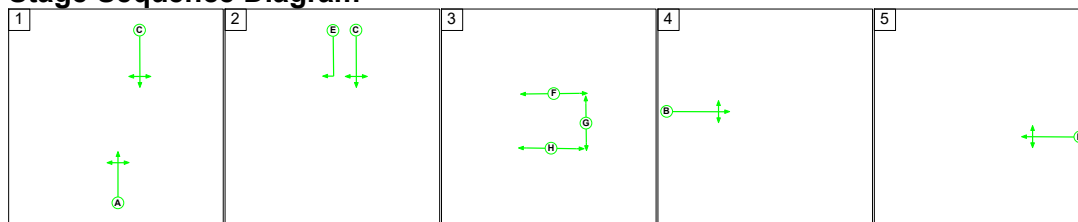
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	37	4	308	1800:1800	531+41	53.8 : 53.8%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	25	-	336	1800	390	86.2%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	30	-	322	1796	383	84.1%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	15	-	226	1730:1753	49+222	83.5 : 83.5%
5/1		U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 29: '2034 Reference Case 3-4PM' (FG29: '34RC\_3-4PM', Plan 1: '5 Stage Plan')

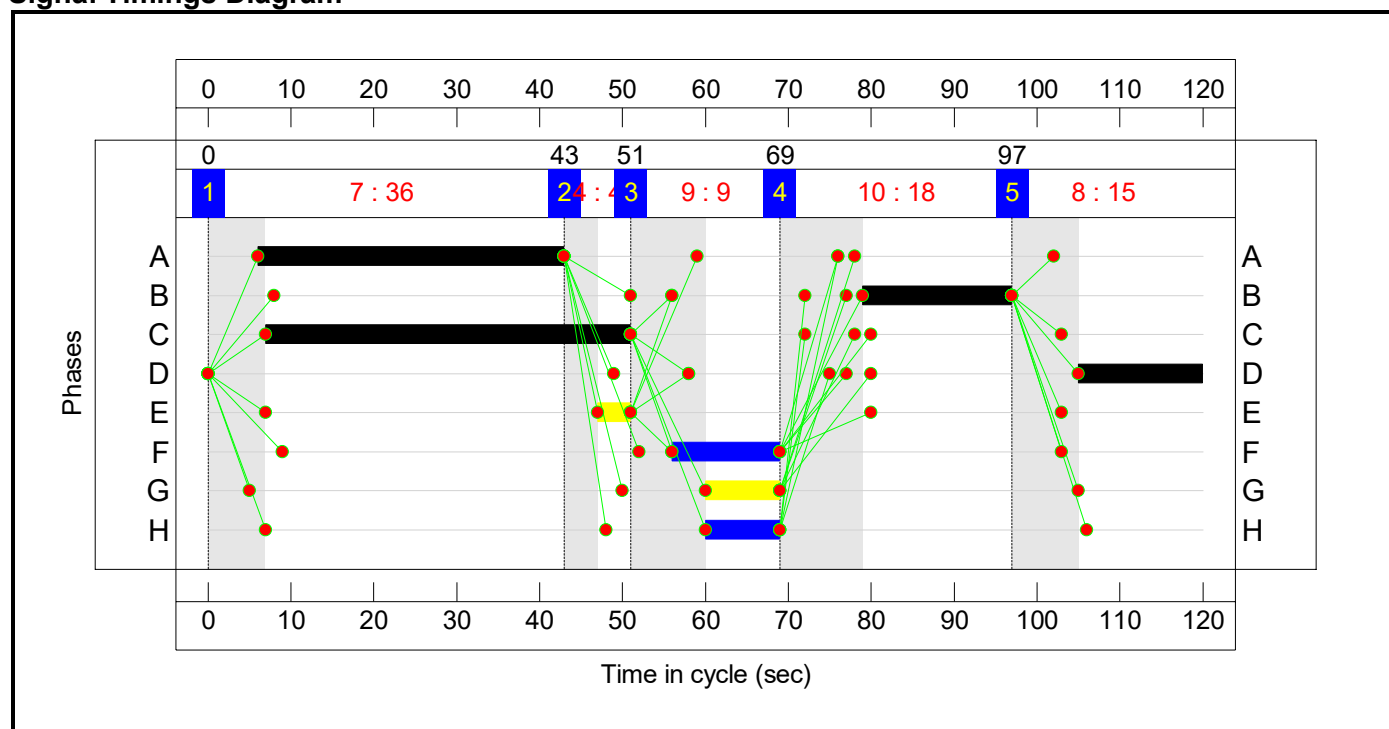
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	36	4	9	18	15
Change Point	0	43	51	69	97

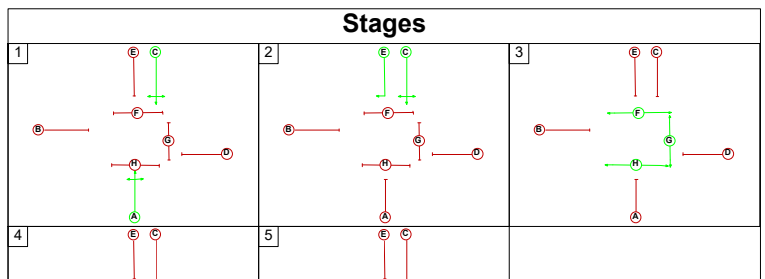
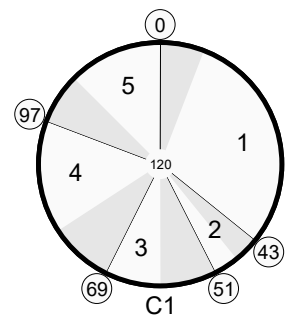
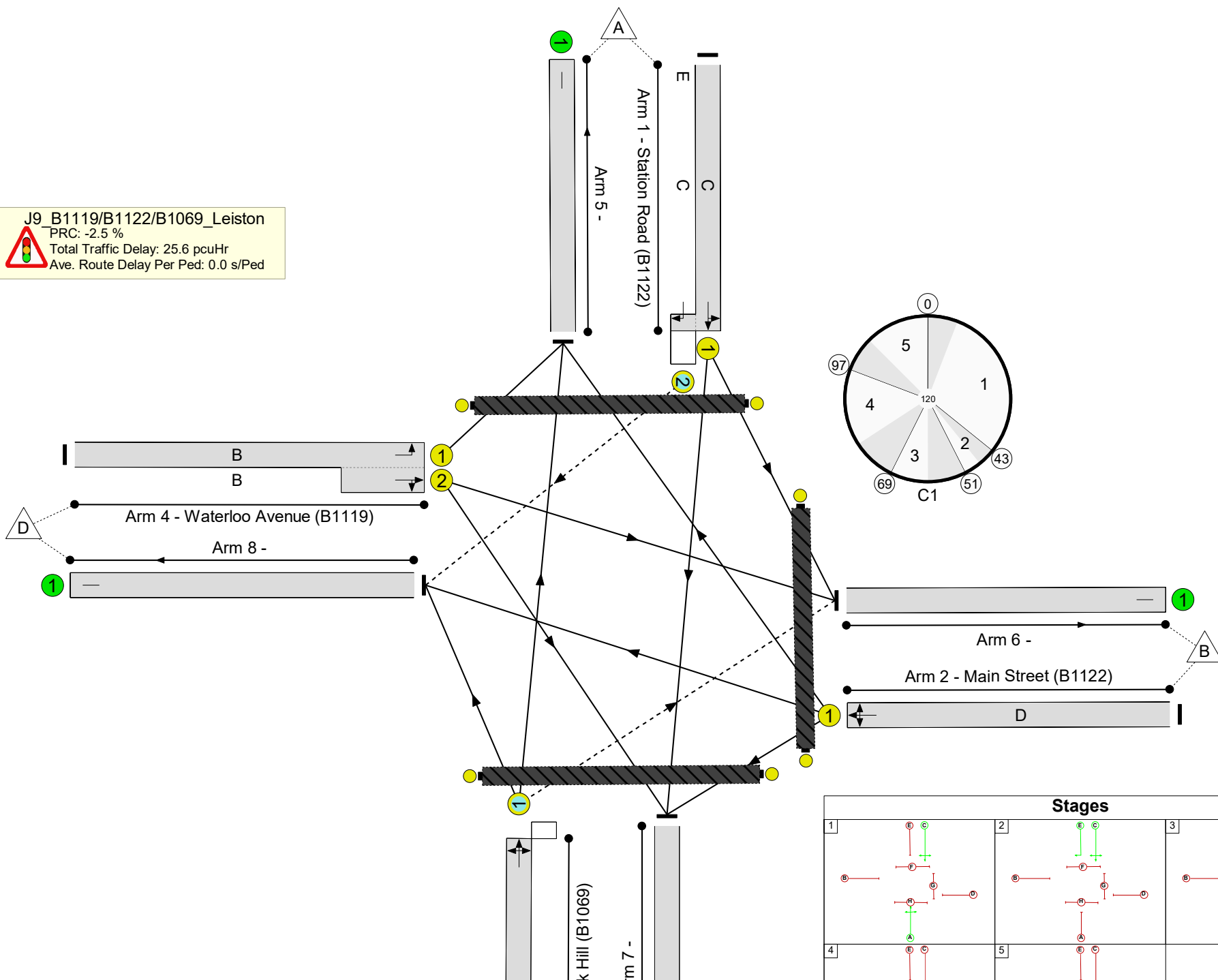
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: -2.5 %  
 Total Traffic Delay: 25.6 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

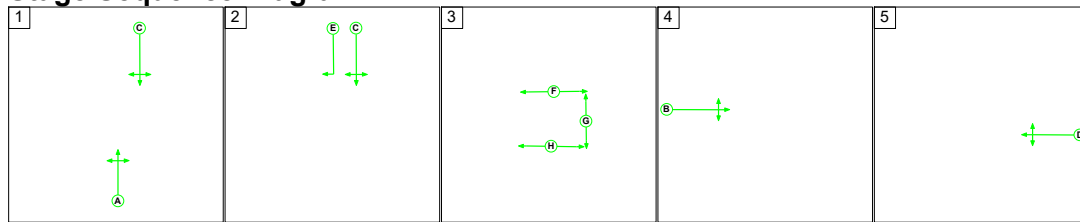
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	92.2%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	92.2%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	44	4	377	1800:1800	583+97	55.4 : 55.4%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	15	-	217	1800	240	90.4%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	37	-	341	1790	394	86.6%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	18	-	298	1730:1756	70+253	92.2 : 92.2%
5/1		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 30: '2034 Reference Case 5-6PM' (FG30: '34RC\_5-6PM', Plan 1: '5 Stage Plan')

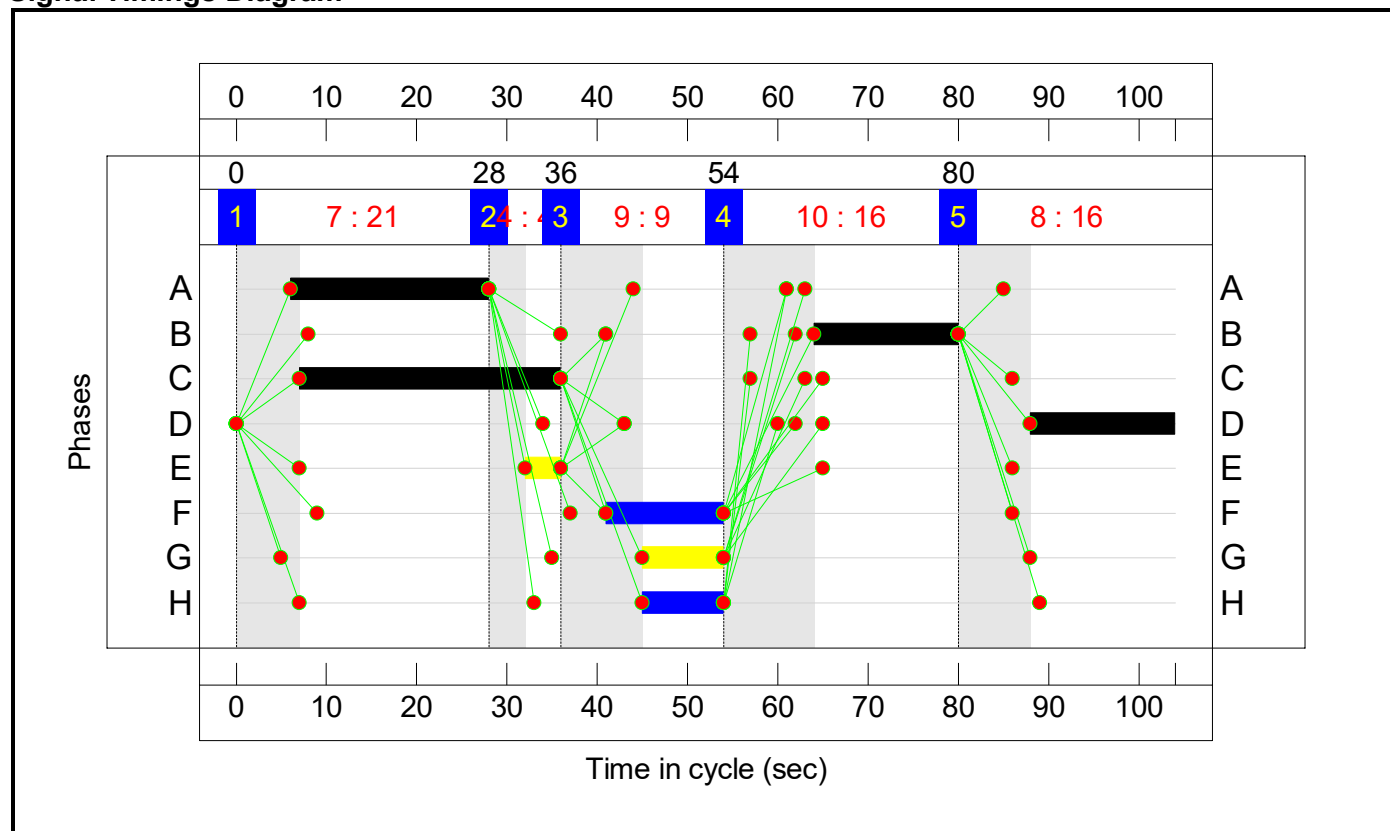
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	21	4	9	16	16
Change Point	0	28	36	54	80

Signal Timings Diagram

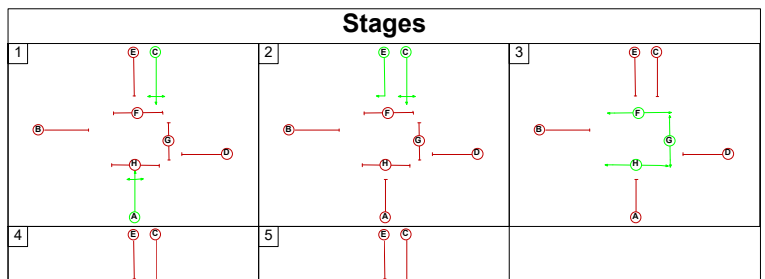
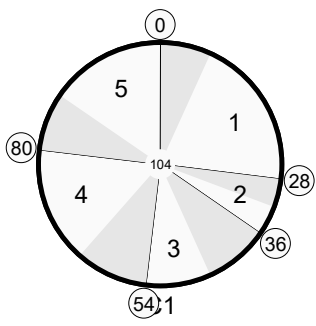
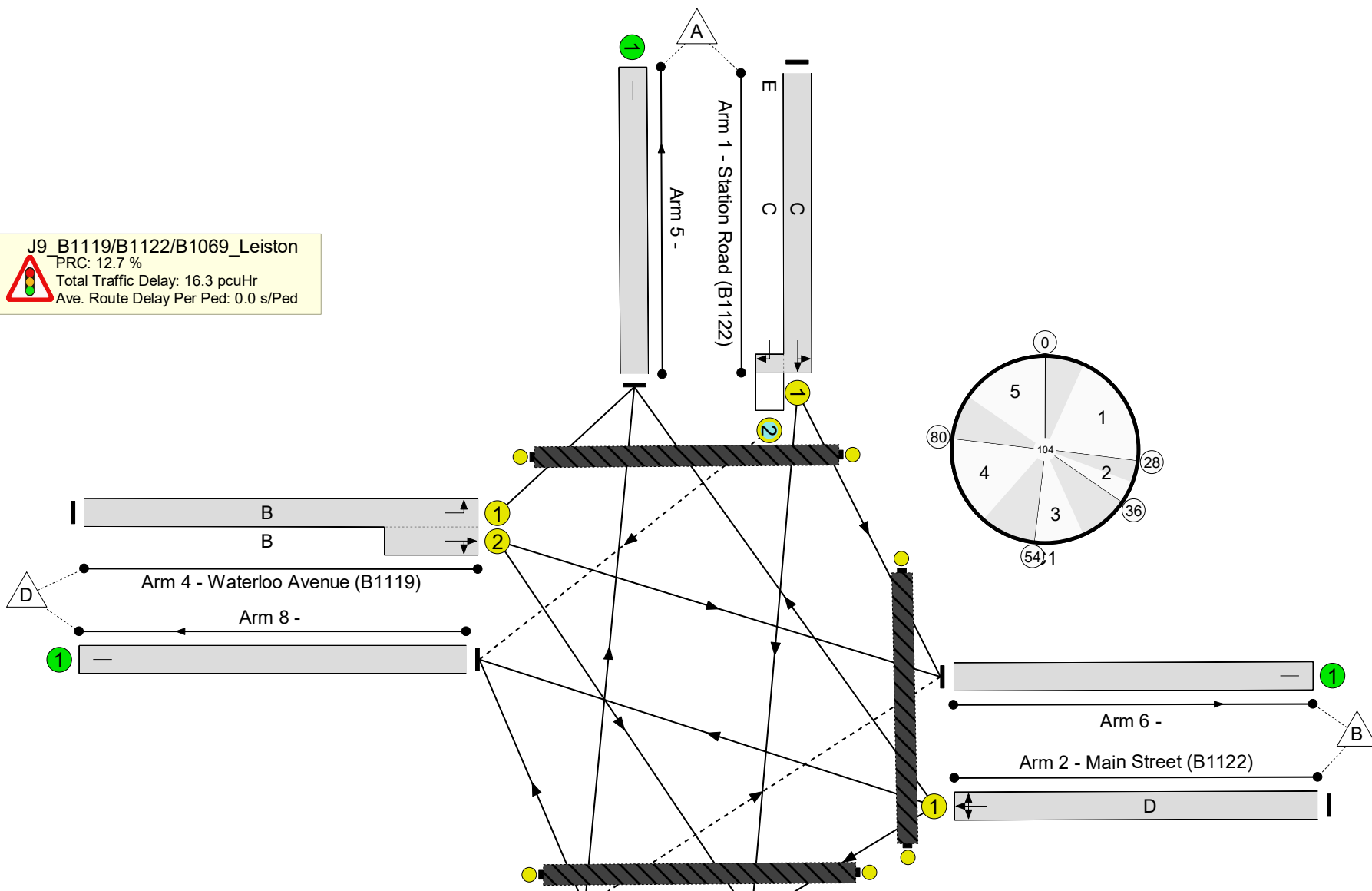




Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 12.7 %  
 Total Traffic Delay: 16.3 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

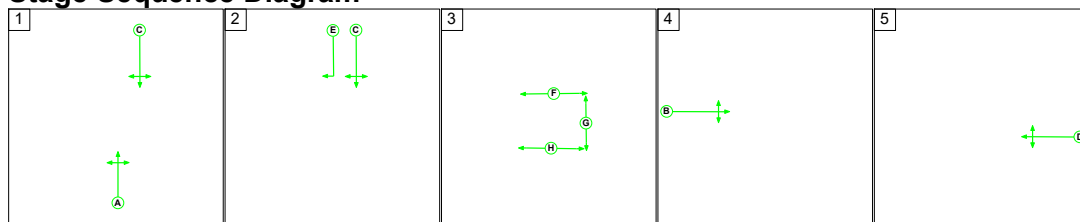
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.9%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	79.9%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	29	4	257	1800:1800	414+115	48.6 : 48.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	16	-	221	1800	294	75.1%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	22	-	293	1783	382	76.7%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	16	-	255	1730:1753	45+274	79.9 : 79.9%
5/1		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	226	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 31: '2034 Operational Led 6-7AM' (FG31: '34OP\_6-7AM', Plan 1: '5 Stage Plan')

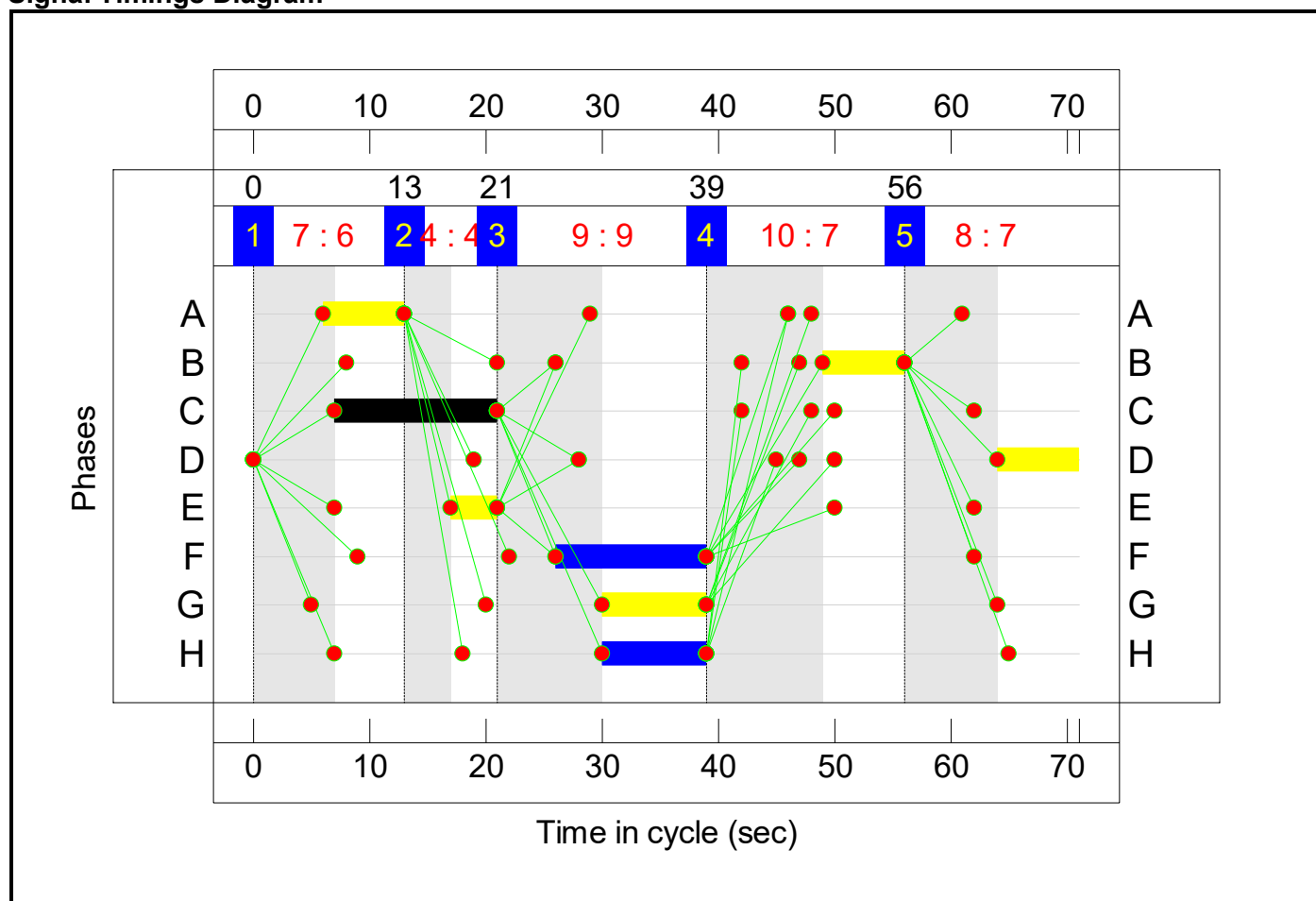
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	4	9	7	7
Change Point	0	13	21	39	56

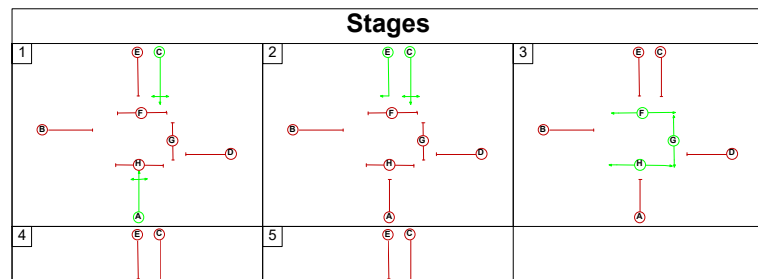
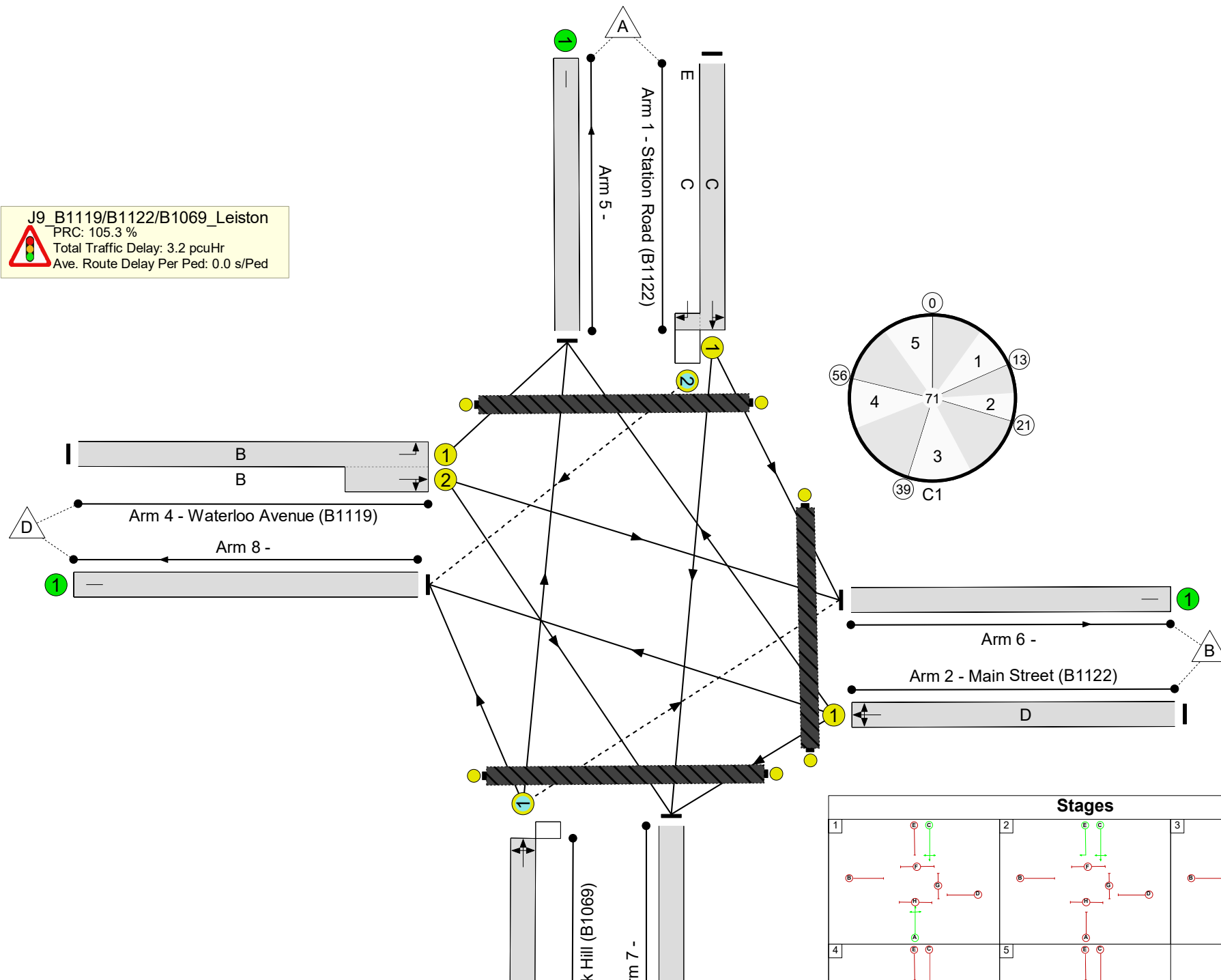
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 105.3 %  
 Total Traffic Delay: 3.2 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	43.8%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	43.8%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	14	4	81	1800:1800	348+38	21.0 : 21.0%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	7	-	61	1800	203	30.1%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	7	-	89	1802	203	43.8%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	67	1730:1749	52+197	26.9 : 26.9%
5/1		U	N/A	N/A	-		-	-	-	90	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

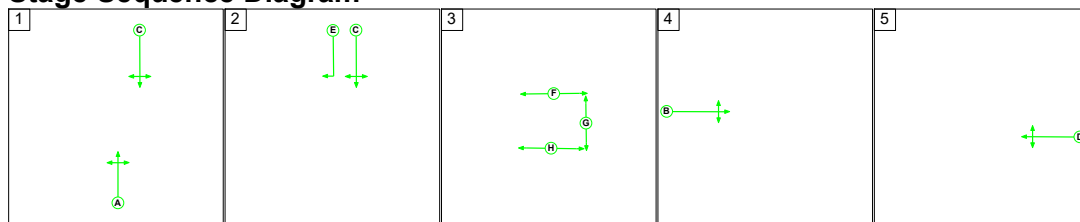




Full Input Data And Results

Scenario 32: '2034 Operational Led 7-8AM' (FG32: '34OP\_7-8AM', Plan 1: '5 Stage Plan')

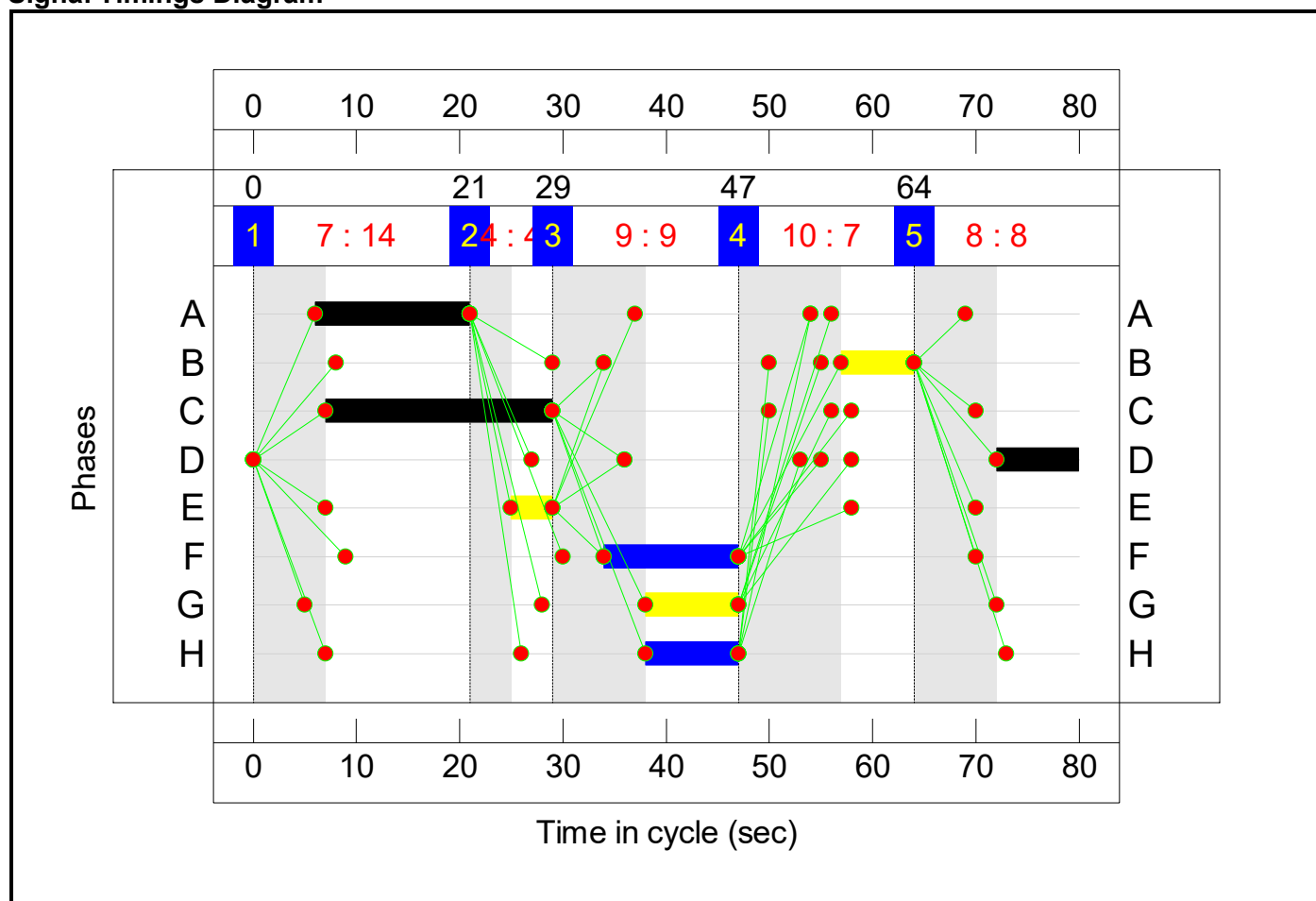
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	14	4	9	7	8
Change Point	0	21	29	47	64

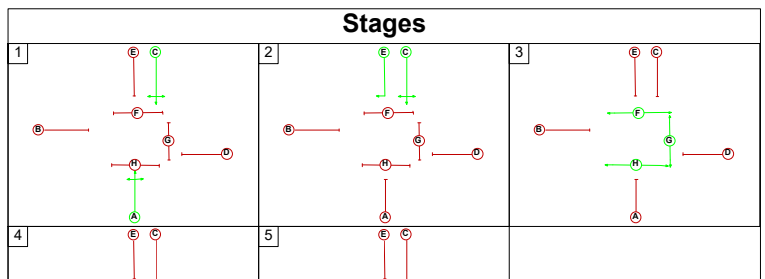
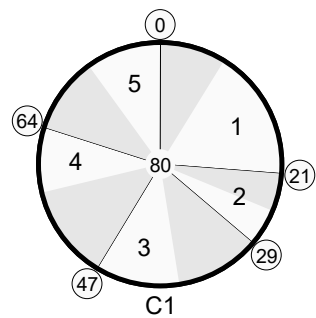
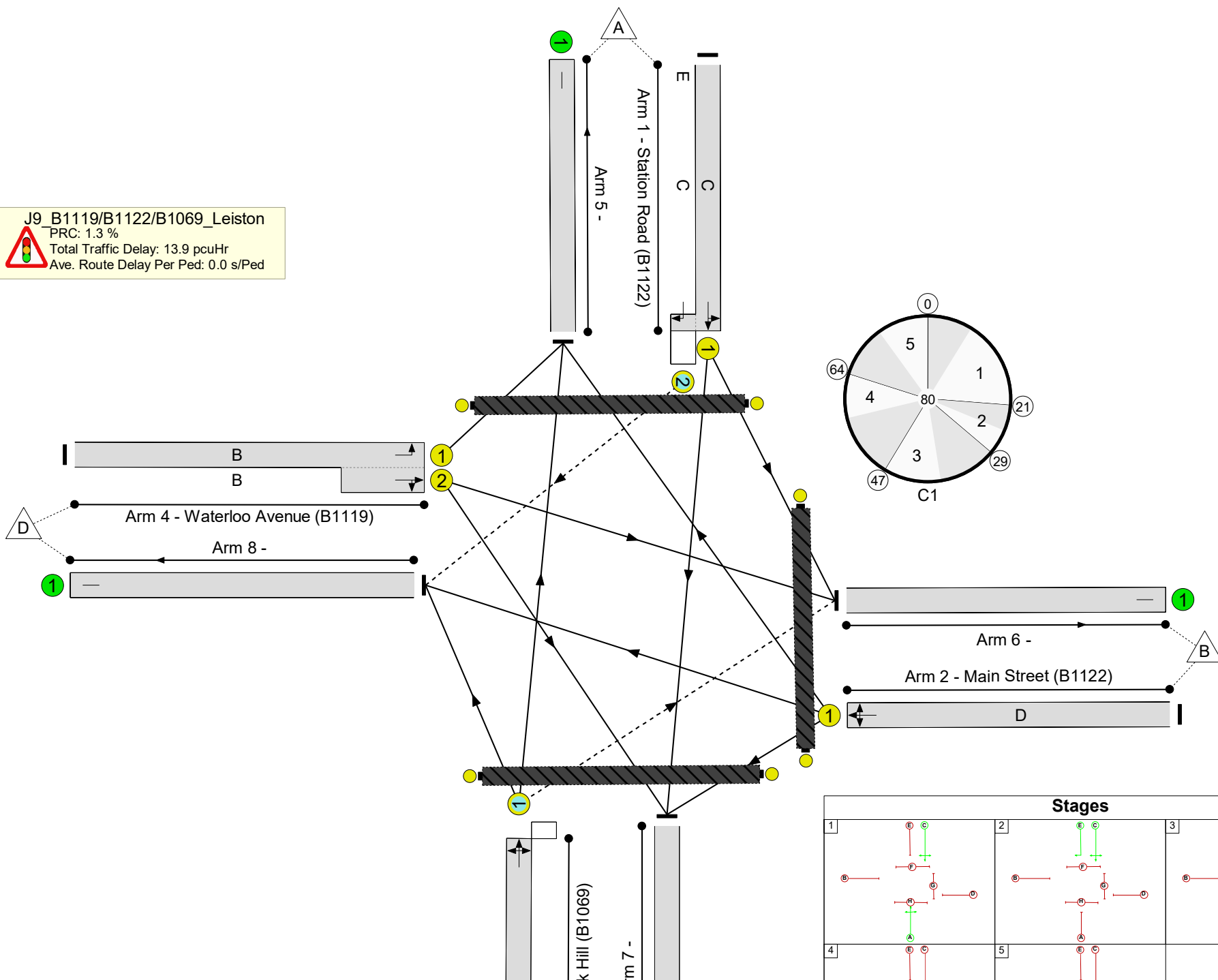
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 1.3 %  
 Total Traffic Delay: 13.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

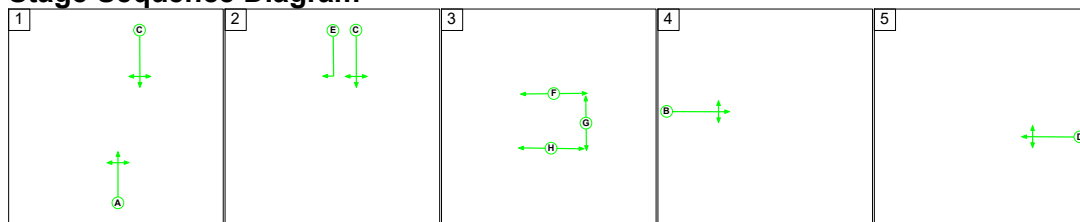
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	88.8%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	88.8%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	22	4	201	1800:1800	489+31	38.6 : 38.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	8	-	169	1800	203	83.5%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	15	-	324	1824	365	88.8%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	7	-	149	1730:1752	71+175	60.5 : 60.5%
5/1		U	N/A	N/A	-		-	-	-	346	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	156	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 33: '2034 Operational Led 8-9AM' (FG33: '34OP\_8-9AM', Plan 1: '5 Stage Plan')

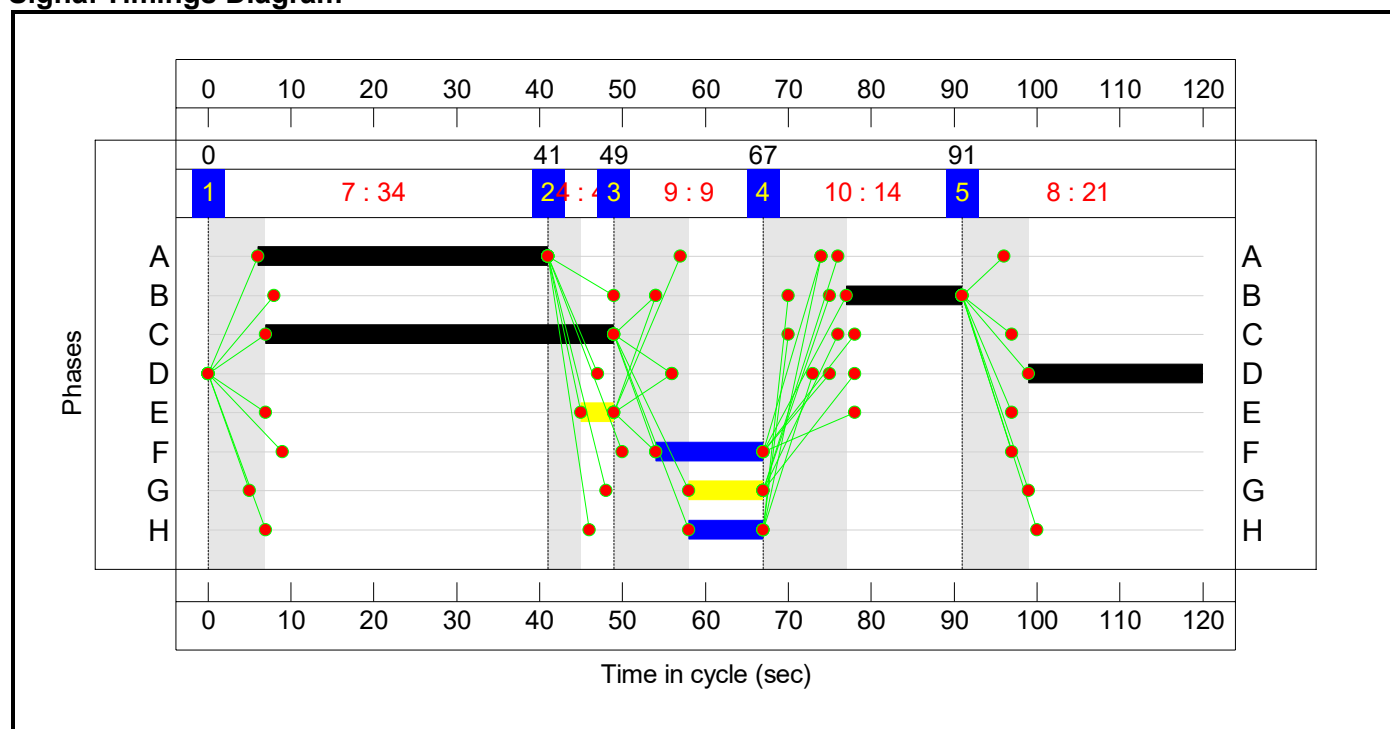
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	34	4	9	14	21
Change Point	0	41	49	67	91

Signal Timings Diagram

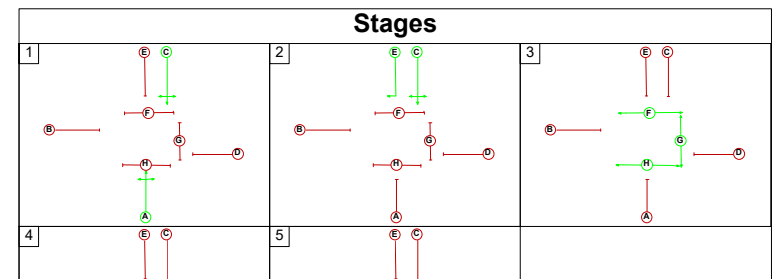
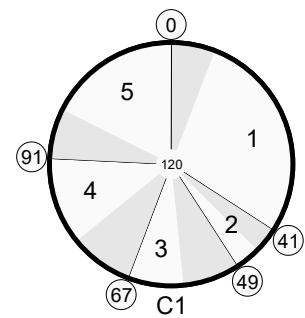
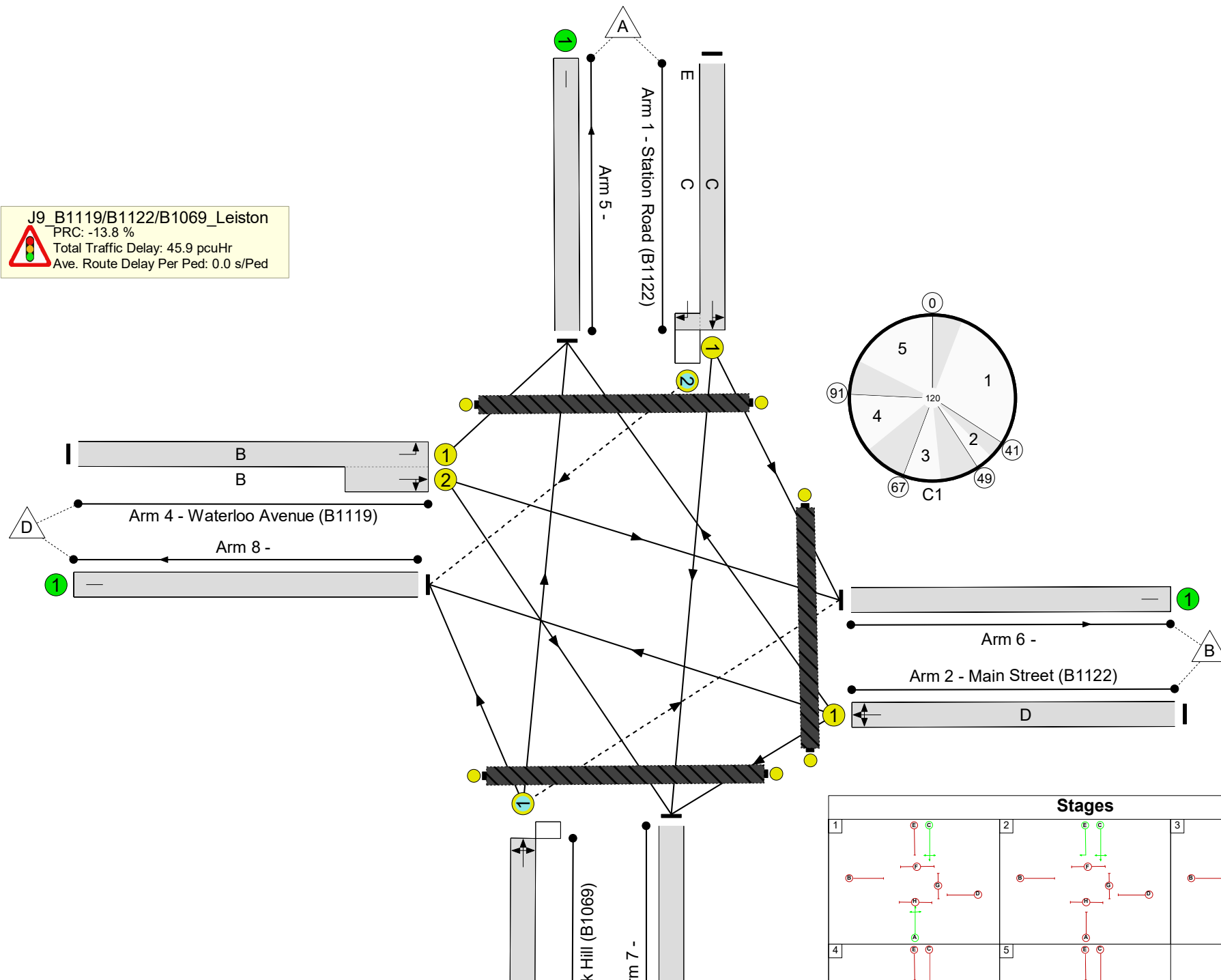


Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: -13.8 %  
 Total Traffic Delay: 45.9 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

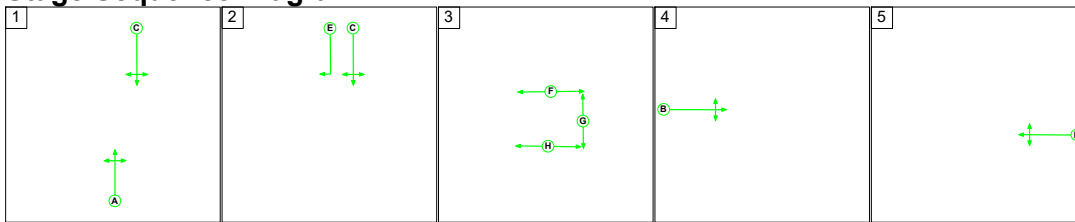
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	102.4%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	102.4%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	42	4	330	1800:1800	597+51	51.0 : 51.0%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	21	-	338	1800	330	102.4%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	35	-	513	1823	534	96.1%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	14	-	357	1730:1754	187+178	97.8 : 97.8%
5/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



Full Input Data And Results

Scenario 34: '2034 Operational Led 3-4PM' (FG34: '34OP\_3-4PM', Plan 1: '5 Stage Plan')

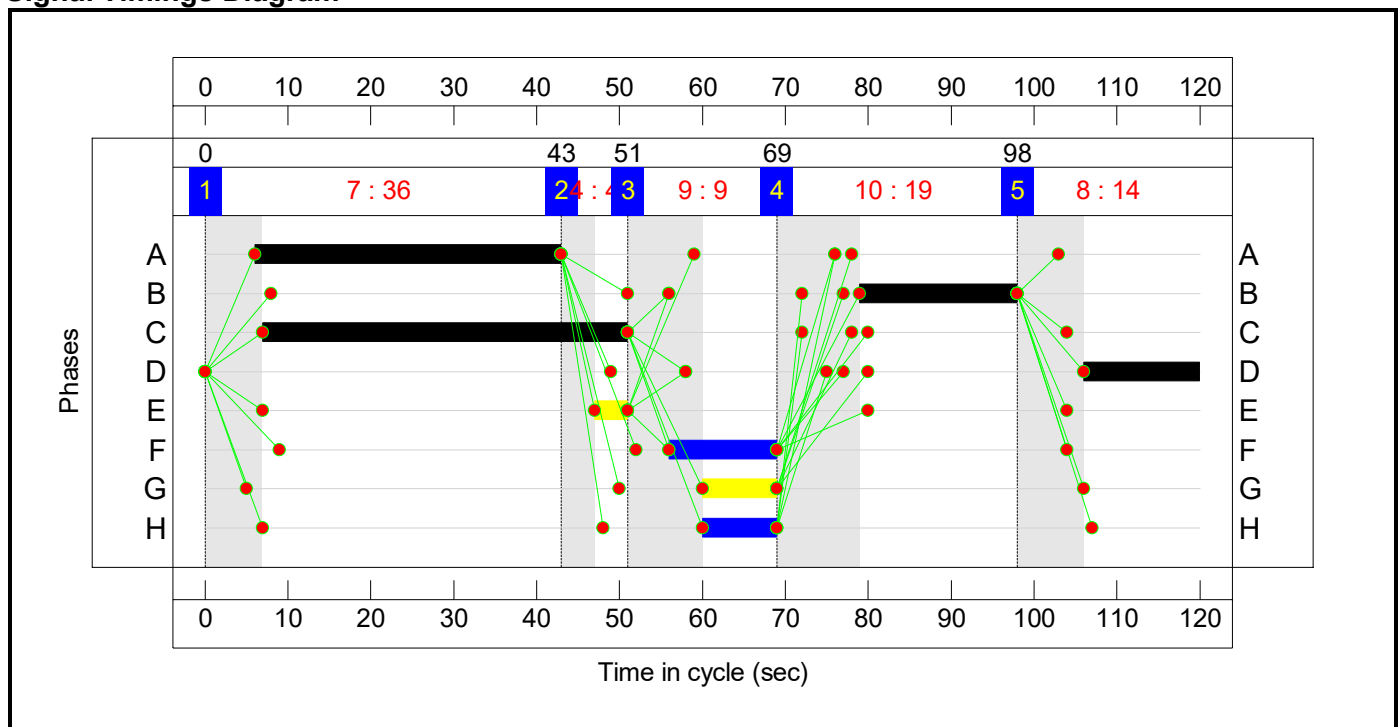
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	36	4	9	19	14
Change Point	0	43	51	69	98

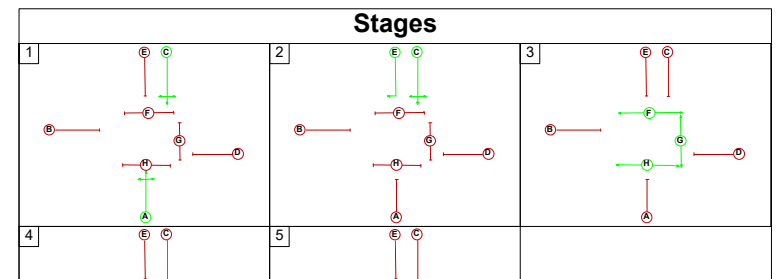
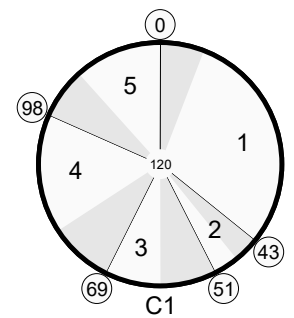
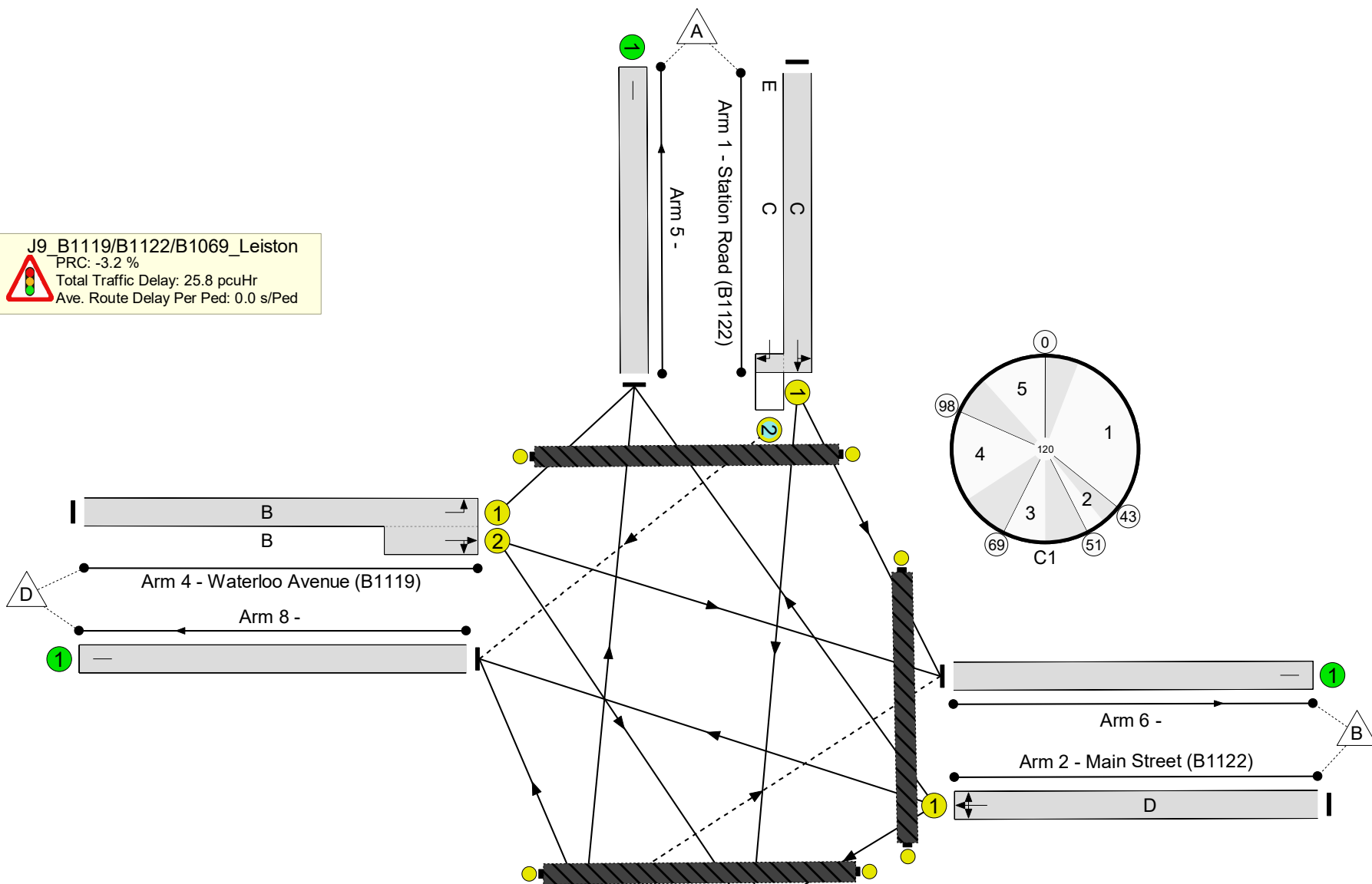
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: -3.2 %  
 Total Traffic Delay: 25.8 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	92.9%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	92.9%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	44	4	378	1800:1800	586+94	55.6 : 55.6%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	14	-	209	1800	225	92.9%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	37	-	344	1791	395	87.0%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	19	-	288	1730:1755	38+278	90.9 : 90.9%
5/1		U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	229	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%

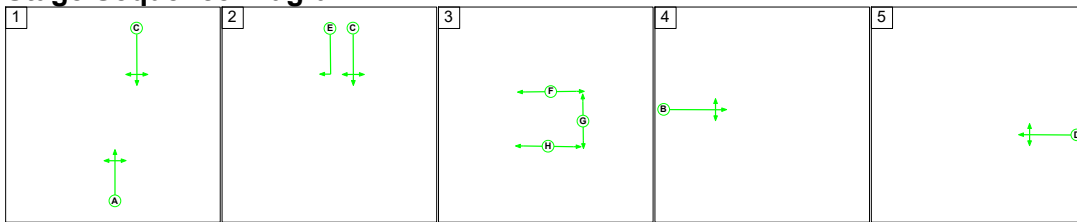




Full Input Data And Results

Scenario 35: '2034 Operational Led 5-6PM' (FG35: '34OP\_5-6PM', Plan 1: '5 Stage Plan')

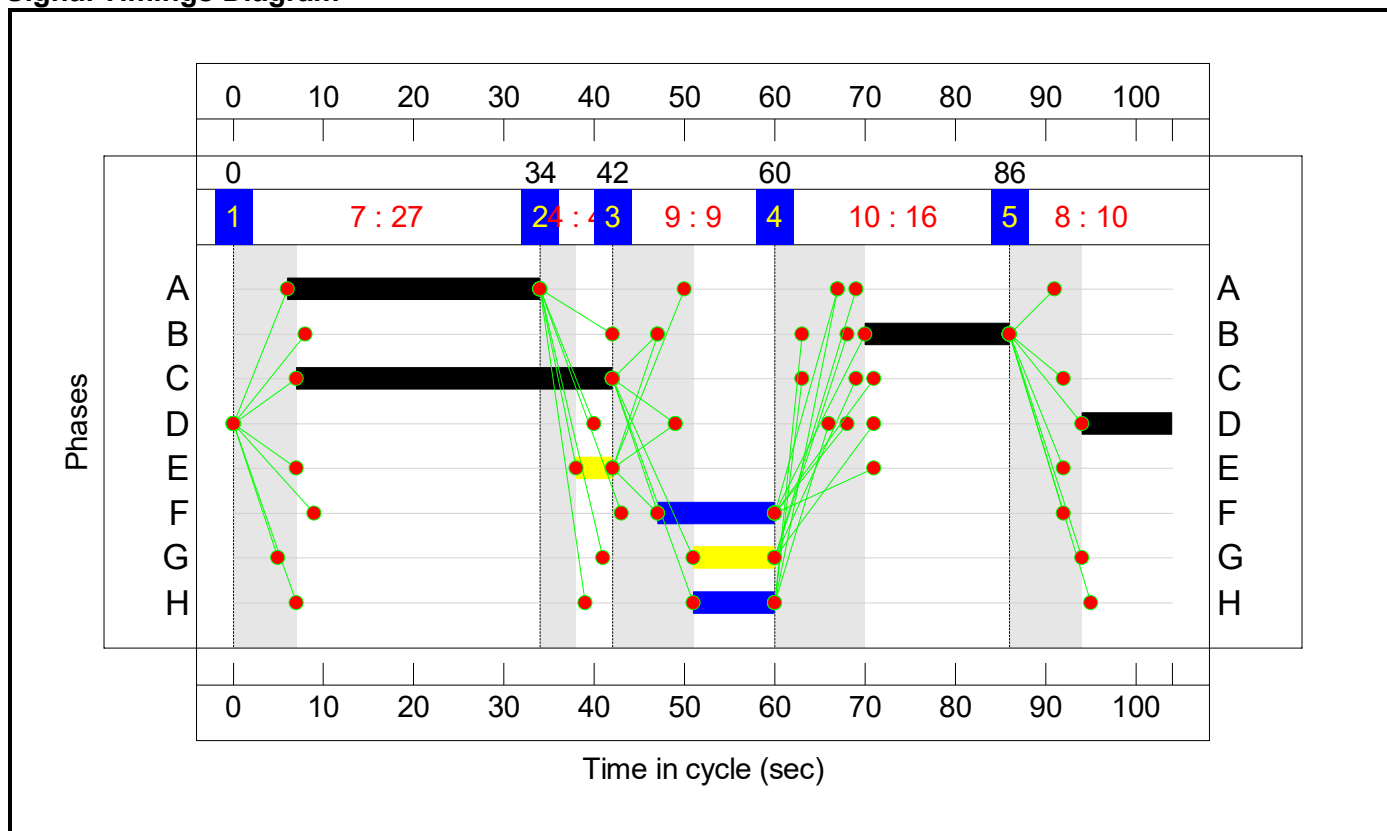
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	27	4	9	16	10
Change Point	0	34	42	60	86

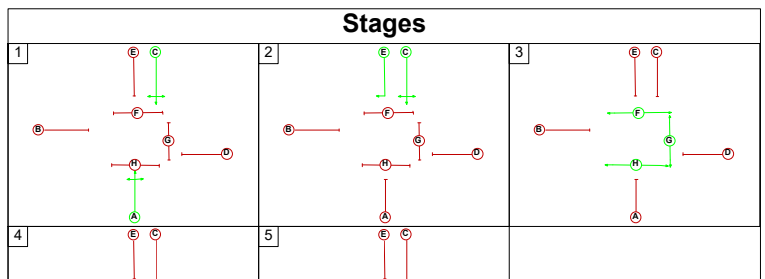
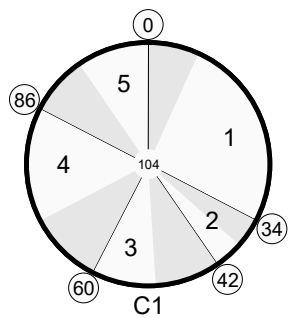
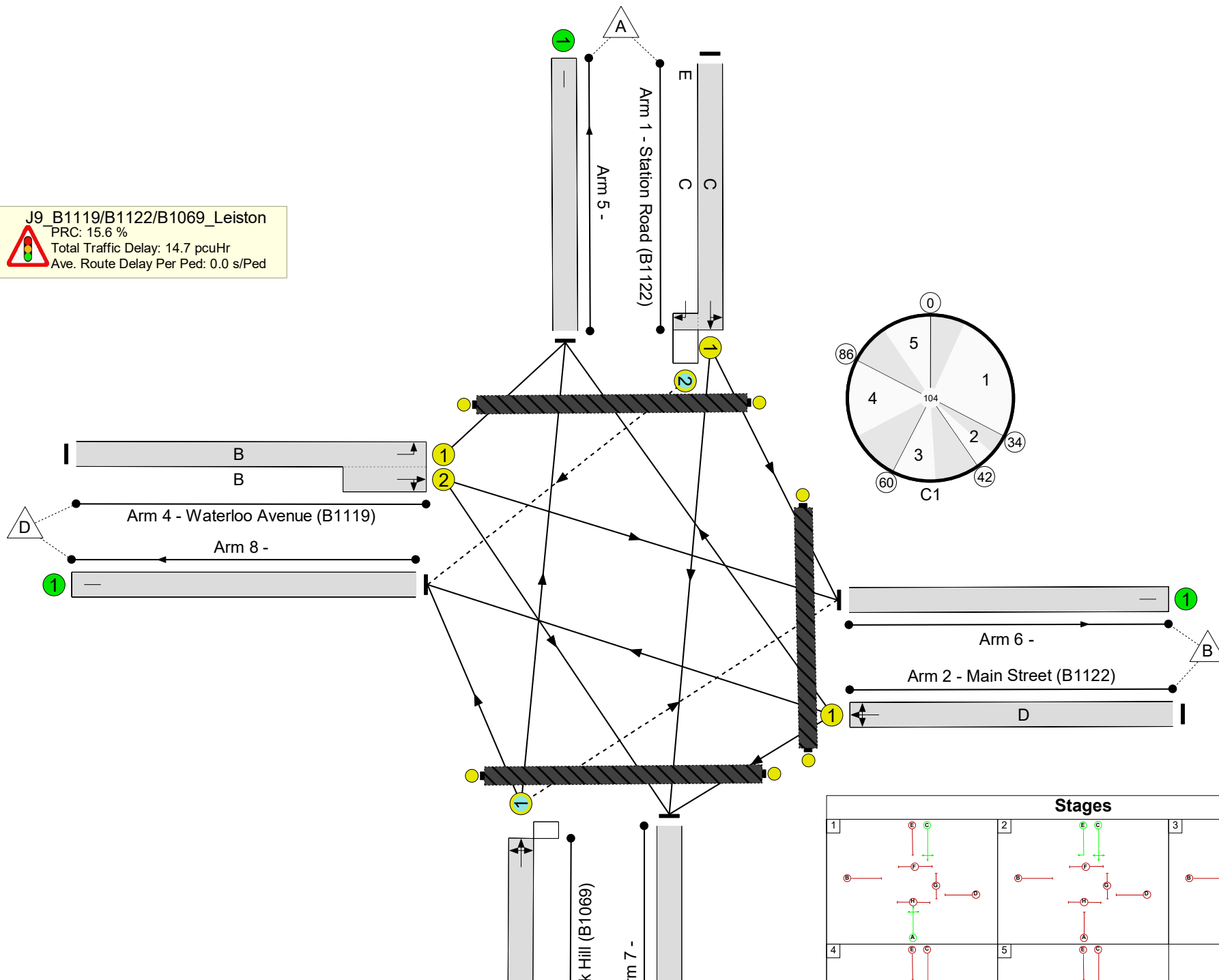
Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**

Full Input Data And Results

J9\_B1119/B1122/B1069\_Leiston  
 PRC: 15.6 %  
 Total Traffic Delay: 14.7 pcuHr  
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network: Standalone Modelling 2018 - J9 (B1119 / B1122 / B1069 Leiston)</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.9%
<b>J9_B1119/B1122/B1069_Leiston</b>	-	-	N/A	-	-		-	-	-	-	-	-	77.9%
1/1+1/2	Station Road (B1122) Left Ahead Right	U+O	N/A	N/A	C	E	1	35	4	260	1800:1800	492+141	41.1 : 41.1%
2/1	Main Street (B1122) Right Left Ahead	U	N/A	N/A	D		1	10	-	140	1800	190	73.5%
3/1	Park Hill (B1069) Ahead Right Left	O	N/A	N/A	A		1	28	-	359	1787	498	72.1%
4/1+4/2	Waterloo Avenue (B1119) Left Ahead Right	U	N/A	N/A	B		1	16	-	248	1730:1754	44+275	77.9 : 77.9%
5/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	H		1	9	-	0	-	0	0.0%



## Junctions 9

### PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947  
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Filename: 2020.09.22\_J14\_Model\_v17.j9  
 Path: C:\Users\UKVXG007\Desktop\SZC\w17 Core Assessment (2034 Update)\J14\Model  
 Report generation date: 17/12/2020 18:14:59

- «A1094 / B1069 (Church Road) - 2034 Operational Led, 8-9 AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	6-7 AM					7-8 AM					8-9 AM					3-4 PM					5-6 PM				
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS
<b>A1094 / B1069 (Church Road) - Base Year</b>																									
Stream B-ACD	0.2	0.5	8.55	0.13	A	0.6	2.7	12.90	0.37	B	1.0	3.9	17.18	0.51	C	1.3	4.9	19.75	0.57	C	1.1	4.0	16.98	0.53	C
Stream A-BCD	0.0	0.5	6.55	0.01	A	0.0	0.5	7.37	0.01	A	0.0	0.5	8.71	0.04	A	0.0	0.5	7.71	0.03	A	0.0	0.5	7.64	0.03	A
Stream D-ABC	0.0	0.5	7.65	0.02	A	0.1	0.5	10.17	0.12	B	0.2	0.5	11.05	0.16	B	0.2	1.1	11.09	0.19	B	0.2	0.5	11.04	0.16	B
Stream C-ABD	0.0	0.5	7.18	0.02	A	0.1	0.5	8.04	0.11	A	0.2	0.5	8.27	0.14	A	0.2	0.5	8.11	0.14	A	0.1	0.5	7.96	0.11	A
<b>A1094 / B1069 (Church Road) - 2023 Reference Case</b>																									
Stream B-ACD	0.4	1.7	10.83	0.29	B	0.8	3.3	15.48	0.44	C	1.5	6.0	22.91	0.60	C	2.0	9.7	27.33	0.67	D	1.9	9.0	26.33	0.66	D
Stream A-BCD	0.0	0.5	7.12	0.01	A	0.0	0.5	7.61	0.01	A	0.1	0.5	9.49	0.05	A	0.0	0.5	8.01	0.04	A	0.0	0.5	7.91	0.03	A
Stream D-ABC	0.0	0.5	8.59	0.03	A	0.2	0.5	11.28	0.15	B	0.3	1.2	13.16	0.21	B	0.3	1.3	12.42	0.22	B	0.3	1.2	13.11	0.21	B
Stream C-ABD	0.0	0.5	7.25	0.02	A	0.2	0.5	8.31	0.13	A	0.2	0.7	8.08	0.17	A	0.2	0.8	8.39	0.17	A	0.2	0.5	8.64	0.13	A
<b>A1094 / B1069 (Church Road) - 2023 Early Years</b>																									
Stream B-ACD	0.5	2.0	11.48	0.32	B	1.1	4.6	19.39	0.54	C	1.6	7.2	24.34	0.63	C	2.0	10.1	28.16	0.68	D	2.1	10.8	30.56	0.69	D
Stream A-BCD	0.0	0.5	7.38	0.01	A	0.0	0.5	8.01	0.01	A	0.1	0.5	9.50	0.05	A	0.0	0.5	8.01	0.04	A	0.0	0.5	7.97	0.03	A
Stream D-ABC	0.0	0.5	8.99	0.03	A	0.2	0.5	12.48	0.16	B	0.3	1.2	13.29	0.21	B	0.3	1.3	12.55	0.23	B	0.3	1.3	13.77	0.21	B
Stream C-ABD	0.0	0.5	7.25	0.02	A	0.2	0.5	8.22	0.14	A	0.2	0.7	8.14	0.17	A	0.2	0.8	8.46	0.17	A	0.2	0.6	8.97	0.17	A
<b>A1094 / B1069 (Church Road) - 2028 Reference Case</b>																									
Stream B-ACD	0.4	1.8	10.98	0.30	B	0.8	3.6	16.38	0.46	C	1.8	8.2	25.75	0.65	D	2.5	12.4	32.56	0.72	D	2.1	10.5	28.36	0.69	D
Stream A-BCD	0.0	0.5	7.15	0.01	A	0.0	0.5	7.71	0.01	A	0.1	0.5	9.69	0.05	A	0.0	0.5	8.12	0.04	A	0.0	0.5	7.91	0.04	A
Stream D-ABC	0.0	0.5	8.65	0.03	A	0.2	0.5	11.67	0.16	B	0.3	1.3	13.77	0.22	B	0.3	1.4	13.03	0.24	B	0.3	1.3	13.21	0.22	B
Stream C-ABD	0.0	0.5	7.26	0.02	A	0.2	0.5	8.31	0.14	A	0.2	0.9	8.04	0.17	A	0.3	1.1	8.50	0.18	A	0.2	0.5	8.69	0.15	A
<b>A1094 / B1069 (Church Road) - 2028 Peak Construction</b>																									
Stream B-ACD	0.8	3.1	13.62	0.43	B	1.7	7.5	24.64	0.63	C	2.0	10.1	28.73	0.68	D	2.6	13.2	34.77	0.74	D	2.5	12.4	32.99	0.72	D
Stream A-BCD	0.0	0.5	7.38	0.01	A	0.0	0.5	7.99	0.01	A	0.1	0.5	9.75	0.05	A	0.0	0.5	8.15	0.04	A	0.0	0.5	8.02	0.04	A
Stream D-ABC	0.0	0.5	9.01	0.03	A	0.2	0.7	12.44	0.17	B	0.3	1.3	14.00	0.22	B	0.3	1.4	13.37	0.25	B	0.3	1.3	14.17	0.23	B
Stream C-ABD	0.0	0.5	7.29	0.02	A	0.2	0.5	8.32	0.14	A	0.2	0.9	8.07	0.17	A	0.3	1.1	8.62	0.18	A	0.2	0.5	8.97	0.15	A
<b>A1094 / B1069 (Church Road) - 2034 Reference Case</b>																									
Stream B-ACD	0.4	1.9	11.15	0.30	B	0.9	3.8	17.17	0.49	C	1.9	9.0	26.09	0.66	D	3.2	16.7	39.78	0.78	E	2.1	10.6	27.36	0.69	D
Stream A-BCD	0.0	0.5	7.18	0.01	A	0.0	0.5	7.77	0.01	A	0.1	0.5	9.38	0.05	A	0.0	0.5	8.20	0.04	A	0.0	0.5	7.95	0.04	A
Stream D-ABC	0.0	0.5	8.72	0.03	A	0.2	0.6	11.80	0.16	B	0.3	1.3	12.99	0.22	B	0.3	1.5	13.42	0.25	B	0.3	1.3	12.96	0.22	B
Stream C-ABD	0.0	0.5	7.25	0.03	A	0.2	0.5	8.33	0.15	A	0.3	1.2	8.22	0.19	A	0.3	1.3	8.60	0.20	A	0.2	0.5	8.48	0.16	A
<b>A1094 / B1069 (Church Road) - 2034 Operational Led</b>																									
Stream B-ACD	0.4	1.9	11.15	0.31	B	3.0	15.4	37.40	0.76	E	3.6	19.5	43.31	0.80	E	3.1	16.3	39.04	0.77	E	2.1	10.4	27.20	0.69	D
Stream A-BCD	0.0	0.5	7.18	0.01	A	0.0	0.5	8.21	0.01	A	0.1	0.5	9.70	0.05	A	0.0	0.5	8.19	0.04	A	0.0	0.5	7.93	0.04	A
Stream D-ABC	0.0	0.5	8.72	0.03	A	0.2	0.9	12.96	0.18	B	0.3	1.4	13.85	0.23	B	0.3	1.5	13.38	0.25	B	0.3	1.3	12.93	0.22	B
Stream C-ABD	0.0	0.5	7.25	0.03	A	0.2	0.5	8.32	0.15	A	0.3	1.2	8.23	0.19	A	0.3	1.2	8.58	0.20	A	0.2	0.5	8.50	0.16	A

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

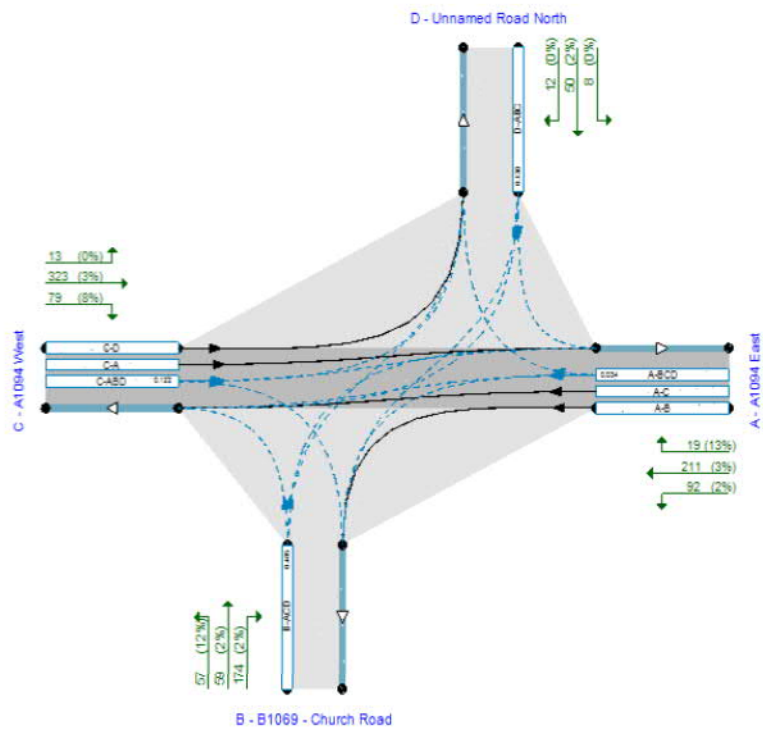
Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description	
Title	A1094 / B1069 (Church Road)
Location	52.179898°, 1.502522°
Site number	14
Date	16/12/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	UKWSPGROUP\ukjgm001
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



The junction diagram reflects the last run of Junctions.

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓			0.85	36.00	20.00

**Analysis Set Details**

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
AJ14	A1094 / B1069 (Church Road)	✓	100.000	100.000

**Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D33	2034 Operational Led	8-9 AM	ONE HOUR	07:45	09:15	15	✓

# A1094 / B1069 (Church Road) - 2034 Operational Led, 8-9 AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A1094 East - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

## Junction Network

### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
J14	A1094 / B1069 (Church Road)	Right-Left Stagger	Two-way	13.22	B

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	A1094 East		Major
B	B1069 - Church Road		Minor
C	A1094 West		Major
D	Unnamed Road North		Minor

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A1094 East	5.90		✓	2.20	26.7	✓	2.00
C - A1094 West	6.35		✓	2.20	26.2	✓	1.00

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

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - B1069 - Church Road	One lane	4.06	22	32
D - Unnamed Road North	One lane	3.34	93	35

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
J14	A-D	589	-	-	-	0.229	0.229	0.229	-	0.229	-	-
J14	B-AD	554	0.099	0.251	-	-	-	0.158	0.359	0.158	0.099	0.251
J14	B-C	712	0.108	0.272	-	-	-	-	-	-	0.108	0.272
J14	C-B	589	0.225	0.225	-	-	-	-	-	-	0.225	0.225
J14	D-A	668	-	-	-	0.260	0.103	0.260	-	0.103	-	-
J14	D-BC	543	0.158	0.158	0.359	0.251	0.099	0.251	-	0.099	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

## Traffic Demand

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A1094 East		ONE HOUR	✓	322	100.000
B - B1069 - Church Road		ONE HOUR	✓	290	100.000
C - A1094 West		ONE HOUR	✓	415	100.000
D - Unnamed Road North		ONE HOUR	✓	70	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To			
		A - A1094 East	B - B1069 - Church Road	C - A1094 West	D - Unnamed Road North
From	A - A1094 East	0	92	211	19
	B - B1069 - Church Road	174	0	57	59
	C - A1094 West	323	79	0	13
	D - Unnamed Road North	8	50	12	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To



		A - A1094 East	B - B1069 - Church Road	C - A1094 West	D - Unnamed Road North
From	A - A1094 East	0	2	3	13
	B - B1069 - Church Road	2	0	12	2
	C - A1094 West	3	8	0	0
	D - Unnamed Road North	0	2	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.80	43.31	3.6	19.5	E	266	400
A-BCD	0.05	9.70	0.1	0.5	A	18	27
A-B						84	127
A-C						194	290
D-ABC	0.23	13.85	0.3	1.4	B	64	97
C-ABD	0.19	8.23	0.3	1.2	A	81	122
C-D						12	18
C-A						288	432

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	219	55	451	0.485	215	0.0	0.9	15.034	C
A-BCD	15	4	435	0.034	14	0.0	0.0	8.560	A
A-B	69	17			69				
A-C	159	40			159				
D-ABC	53	13	405	0.130	52	0.0	0.1	10.184	B
C-ABD	64	16	524	0.122	63	0.0	0.1	7.796	A
C-D	10	2			10				
C-A	239	60			239				

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	261	65	429	0.608	259	0.9	1.5	20.833	C
A-BCD	17	4	417	0.042	17	0.0	0.0	9.003	A
A-B	83	21			83				
A-C	190	47			190				
D-ABC	63	16	377	0.167	63	0.1	0.2	11.452	B
C-ABD	79	20	529	0.149	79	0.1	0.2	7.999	A
C-D	12	3			12				
C-A	283	71			283				

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	320	80	399	0.801	312	1.5	3.3	38.371	E
A-BCD	21	5	394	0.054	21	0.0	0.1	9.666	A
A-B	101	25			101				
A-C	232	58			232				
D-ABC	77	19	339	0.228	77	0.2	0.3	13.742	B
C-ABD	102	25	540	0.188	101	0.2	0.3	8.215	A
C-D	14	4			14				
C-A	341	85			341				

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	320	80	399	0.801	319	3.3	3.6	43.313	E
A-BCD	21	5	393	0.055	21	0.1	0.1	9.701	A
A-B	101	25			101				
A-C	232	58			232				
D-ABC	77	19	337	0.229	77	0.3	0.3	13.848	B
C-ABD	102	25	540	0.189	102	0.3	0.3	8.228	A
C-D	14	4			14				
C-A	341	85			341				

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	261	65	429	0.608	269	3.6	1.6	23.461	C
A-BCD	17	4	415	0.042	18	0.1	0.0	9.049	A
A-B	83	21			83				
A-C	190	47			190				
D-ABC	63	16	375	0.168	63	0.3	0.2	11.564	B
C-ABD	79	20	528	0.149	79	0.3	0.2	8.019	A
C-D	12	3			12				
C-A	283	71			283				

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	219	55	451	0.485	221	1.6	1.0	15.873	C
A-BCD	15	4	434	0.034	15	0.0	0.0	8.591	A

A-B	69	17			69				
A-C	159	40			159				
D-ABC	53	13	404	0.131	53	0.2	0.2	10.264	B
C-ABD	64	16	524	0.122	64	0.2	0.2	7.828	A
C-D	10	2			10				
C-A	239	60			239				

### Queue Variation Results for each time segment

#### 07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.91	0.55	1.00	1.40	1.45			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-ABD	0.15	0.00	0.00	0.15	0.15			N/A	N/A

#### 08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	1.47	0.10	1.17	2.78	3.67			N/A	N/A
A-BCD	0.04	0.03	0.25	0.45	0.48			N/A	N/A
D-ABC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-ABD	0.19	0.00	0.00	0.19	0.19			N/A	N/A

#### 08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	3.34	0.04	0.42	9.19	16.99			N/A	N/A
A-BCD	0.06	0.03	0.26	0.46	0.49			N/A	N/A
D-ABC	0.29	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.27	0.03	0.26	0.46	0.49			N/A	N/A

#### 08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	3.62	0.03	0.34	7.48	19.49			N/A	N/A
A-BCD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-ABC	0.29	0.03	0.31	1.05	1.35			N/A	N/A
C-ABD	0.27	0.03	0.29	0.80	1.15			N/A	N/A

#### 08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	1.64	0.04	0.42	4.38	7.49			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-ABD	0.20	0.00	0.00	0.20	0.20			N/A	N/A

#### 09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.97	0.03	0.33	2.21	4.77			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-ABD	0.15	0.00	0.00	0.15	0.15			N/A	N/A

## APPENDIX 10A: ROAD TRAFFIC COLLISIONS



# TECHNICAL NOTE: SIZEWELL C ROAD TRAFFIC COLLISION ANALYSIS

<b>DATE:</b>	16 December 2020	<b>CONFIDENTIALITY:</b>	Public
<b>SUBJECT:</b>	Sizewell C Road Traffic Collision Analysis		
<b>PROJECT:</b>	50400326	<b>AUTHOR:</b>	John Hicks
<b>CHECKED:</b>	Nick Cottman	<b>APPROVED:</b>	Nick Cottman

## 1.0 INTRODUCTION

- 1.1 This paper sets out to quantify the change in the number of road traffic collisions (RTC) resulting from changes in traffic flows during the construction and operational phases of the Sizewell C project. This information has informed the Health and Wellbeing Assessment described in **Chapter 2** of the **ES Addendum** (Doc Ref. 6.14).
- 1.2 **Chapter 10** of the Sizewell C **Transport Assessment** (Doc Ref. 8.5(A)) [AS-017], submitted with the DCO Application in May 2020, sets out a qualitative analysis of the change in RTC for key parts of the highway network affected by Sizewell C. The Transport Assessment looks at the highway network around the main development site, at all the associated developments and the other highway improvements. It also considers other locations identified by Suffolk County Council or the Police and Crime Commissioner, including the A12 at Martlesham and Woodbridge and the B1125.
- 1.3 This appendix to the **Transport Assessment Addendum** (Doc Ref. 8.5(A)Ad) describes the additional analysis undertaken to quantify the change in collisions across the local highway network for which Suffolk County Council have provided RTC data. It sets out the change in the number of RTC for the 2023 early years, 2028 peak construction and 2034 operational phase scenarios, consistent with the Transport Assessment, providing a snapshot of changes in RTC at these three key periods during construction and operation.

## 2.0 METHODOLOGY

- 2.1 The analysis included in the **Transport Assessment** (Doc Ref. 8.5(A)) [AS-017] was based on historic collision data provided by Suffolk County Council, base year and forecast traffic flows taken from the VISUM strategic traffic model and informed professional judgement about the RTC impacts. The latter was, in part, informed by the COBALT (cost-benefit analysis light touch) manual, which sets out how the Department for Transport treats RTC changes in the economic assessment of new road schemes in accordance with WebTAG (Transport Analysis Guidance). It is a reasonable source and approach to follow in developing this analysis.
- 2.2 Suffolk County Council provided RTC data between May 2014 and May 2019 for all the main roads likely to be affected by Sizewell C between and including the A14 Ipswich, the A12 at Lowestoft and the A140 that forms the western edge of the VISUM study area. This data included several minor roads closer to the Sizewell C site between the A1094 and the B1112 where traffic impacts are likely to be greatest.
- 2.3 The RTC data was provided by Suffolk County Council by area or corridor, and showed the number and severity of RTC over this period. The RTC data was reported in **Table 2.5, Chapter 2** of the **Transport Assessment** (Doc Ref. 8.5(A)) [AS-017], and describes the existing conditions for RTC on the network. The analysis in the Transport Assessment (Doc Ref. 8.5(A)) [AS-017] included identifying a RTC rate per million-vehicle-kilometres to highlight links with higher than average RTC rates.
- 2.4 The Suffolk County Council data, plus that taken from the Crashmap website, formed the basis of the RTC analysis set out in **Chapter 10** of the **Transport Assessment** (Doc Ref. 8.5(A)) [AS-017]. It also formed the basis of RTC analysis in **Chapter 28** [APP-346] and **Chapter 10** [APP-198] of the **Environmental Statement** (Doc Ref. 6.3(A)).
- 2.5 The VISUM strategic traffic model developed for Sizewell C has a 2015 base year. This conveniently falls within the period May 2014 to May 2019 for which Suffolk County Council provided RTC data. It is reasonable

to assume that 2014 traffic flows would have been lower than those in the 2015 base year and flows would have been higher in 2016, 2017, 2018 and 2019.

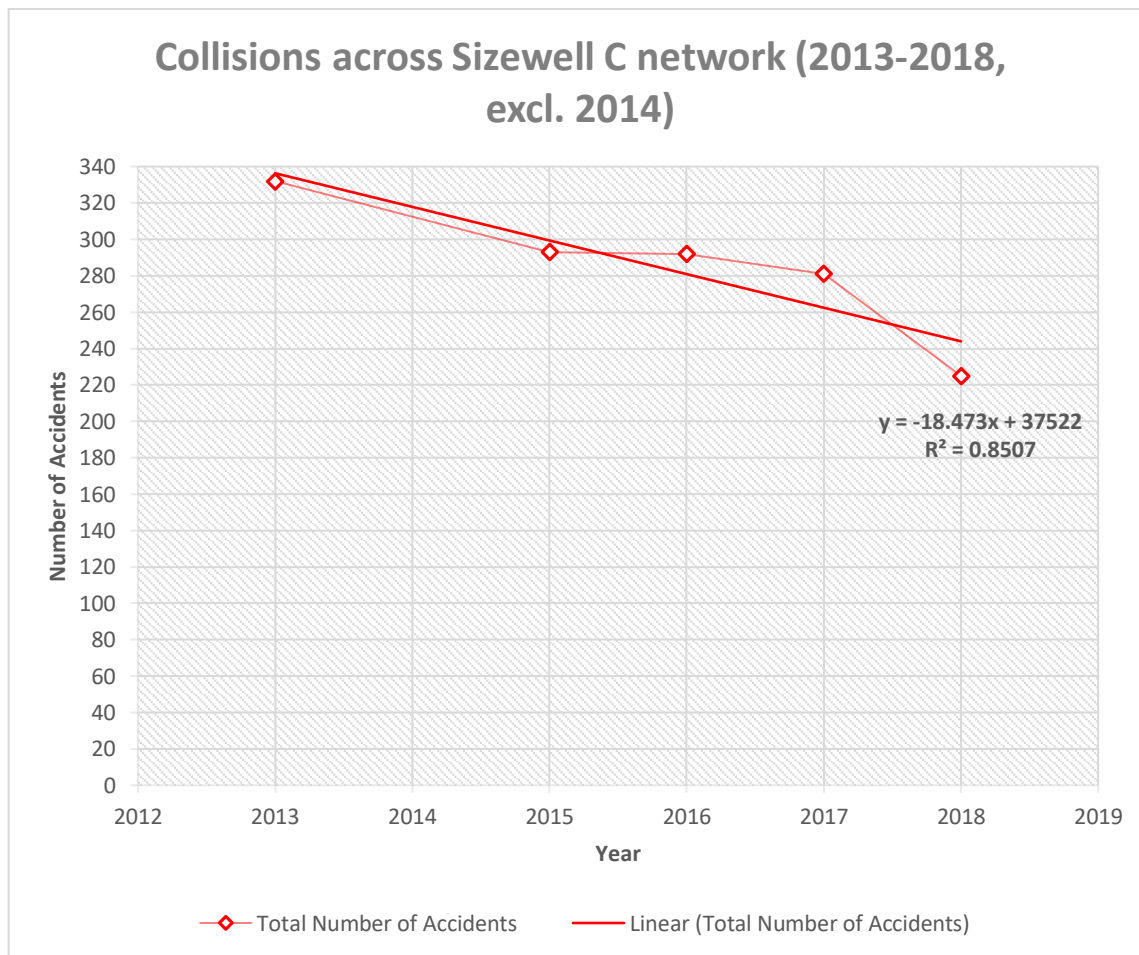
- 2.6 The method of predicting changes in RTC in future years and the guidance for doing so is in the COBALT<sup>1</sup> manual. For this analysis, the COBALT software has not been used but the COBALT parameters and approach has been in order to assess the impact of Sizewell C traffic on RTC numbers.
- 2.7 Suffolk County Council did not split the data into separate junction and link accidents but aggregated it across the whole network by corridor or area. In the analysis therefore, we have used the combined link and junction collision parameters set out in COBALT to assess the likely RTC changes resulting from Sizewell C.
- 2.8 The COBALT parameter files suggest that collision numbers increase linearly with increasing traffic volumes. This can be inferred by the number of RTC increasing per million-vehicle-kilometres. Such an approach, assuming the linear increase of collisions with increasing traffic volume, is a reasonable approach for combined link and junction accidents.
- 2.9 On this basis, it is possible to predict future year collision numbers by considering the change in traffic volumes on the respective link. These changes in traffic volumes come from the VISUM model for the assessment years - 2023 early years, 2028 peak construction and 2034 operational phase. As in the DCO **Transport Assessment** (Doc Ref. 8.5(A)) and **Environmental Statement** (Doc Ref. 6.3), the Reference Case is compared against the cases relating to the Sizewell C construction and operational assessment years. The cumulative assessment that includes the Scottish Power scheme has also been assessed but is not reported here because the additional traffic flows are relatively small and the RTC results are essentially the same as those without Scottish Power. From this analysis, we have predicted the change in collisions at early years, peak construction and in the operational phase.
- 2.10 The collision data provided by Suffolk County Council covers the five year period May 2014 to May 2019. In the analysis, we have taken the average number of collisions on each link over this period by simply dividing the total number of RTC by five. From this, we have applied traffic growth and committed development from the base year 2015 by using output traffic flows taken from the VISUM model for the appropriate Reference Case year, for example 2023. This approach may slightly overestimate or provide an upper bound figure for 2023 collision numbers. This is because some of the observed collisions are later than 2015 but we are factoring growth from 2015 to the future year. However, we do not think this is significant in the analysis but should be noted.
- 2.11 We adopted this approach for each link for which we have observed collision data, and traffic volumes from the VISUM model, to estimate the change in collision numbers due to Sizewell C. Suffolk County Council agreed the VISUM network coverage of the base year to include all links with significant impacts resulting from Sizewell C. By comparing the observed and predicted number of collisions, it can be seen that the collisions analysis picks up about 97% of the recorded collisions. This is a sufficiently large proportion from which to predict the percentage change in RTC due to Sizewell C.
- 2.12 This analysis derived the change in collision numbers across each link of the network considered, e.g. B1078. By summation of all links across the whole network, it gives the total change in collision numbers expected due to the traffic increase from Sizewell C. This therefore provides a forecast of the RTC change resulting from traffic growth, committed development and Sizewell C and in 2023 early years, 2028 peak construction and the 2034 operational phase.
- 2.13 The COBALT manual also indicates that there is a long term downward trend in collision numbers over time. This is an important consideration since it indicates that the total number of collisions across the network will continue to reduce over time, irrespective of Sizewell C.
- 2.14 However, before applying these beta factors in the analysis, we have reviewed whether it is consistent with observed collision numbers on the highway network local to Sizewell C. Clearly, if there were no downward trend in the observed RTC data, it would be inconsistent to use the beta factor in future predictions.
- 2.15 To test whether there is a downward trend for observed collision numbers on the local highway network, we looked at collisions for the period 2014 to 2018. (We excluded 2019 as we did not have a full year of data.) We

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<sup>1</sup> (COBALT is an acronym for cost-benefit analysis light touch.)

noted an abnormally low number of RTC in 2014, so excluded that data and added 2013 data into the analysis. Suffolk County Council did not provide this 2013 data but we obtained it from the Crashmap website.

- 2.16 The local highway network affected by Sizewell C for which we have RTC data consists of several different road types:
- 191.2 kilometres of single carriageway A road;
  - 54.5 kilometres of dual carriageway A road; and
  - 150.4 kilometres of B and C roads.
- 2.17 Using COBALT beta values for each of these road types, we calculated a weighted beta factor to apply across the local highway network affected by Sizewell C.
- 2.18 This analysis of the 2013 to 2018 data showed clearly a significant downward trend in collision numbers across the local highway network over this period. The linear regression analysis has a  $r^2$  value of 0.85 showing good correlation, giving confidence in the trend. On **Figure 2.1**, the gradient from the trendline in the regression analysis indicated a 5.2% per annum reduction in collision numbers over the period 2013 to 2018. This is consistent with the COBALT figure for the period 2004 to 2019, which is also 5.2% per annum.



**Figure 2.1: Regression Analysis of 2013-2018 Collision Data**

- 2.19 Given the similarity between the downward trend in the observed RTC data and that predicted by COBALT, it is reasonable to include this beta factor in the subsequent analysis. COBALT indicates that for the period 2020 - 2029, the local beta factor reduces to 2.6% per annum and for 2030 - 2039 to 1.3% per annum. We have therefore applied appropriate beta factors to the 2023, 2028 and 2034 analysis.

- 2.20 The effect of the beta factor is to significantly reduce the expected number of collisions in future years on the local highway network. This effect is much greater than the likely increase in collisions resulting from Sizewell C. This means that, overall, there would be a reduction in the total number of collisions on the local highway network, even with Sizewell C traffic included; albeit, that reduction would be greater without Sizewell C.
- 2.21 However, because the Reference Case number of collisions would be lower, Sizewell C would have a slightly greater percentage impact on collisions than if we had ignored the beta factor. In the results presented below, we have quoted a range a percentage impacts resulting from Sizewell C for 2023, 2028 and the 2034 assessments. The lower percentage excludes the beta factor and the higher percentage includes beta.

### 3.0 RESULTS

- 3.1 The analysis shows that in 2023 early years, the total number of collisions predicted across the local highway network without beta would be 317 per annum, reducing to 260 per annum taking beta into account. The analysis forecasts that additional traffic resulting from Sizewell C Early Years traffic levels would add 14 collisions per annum to the local highway network. This gives a change of between 4.4% and 5.4% per annum. The historic severity split across the Sizewell C network suggests that of the additional 14 collisions, 12 would be slight, 2 serious and none fatal.
- 3.2 Similarly, in 2028, the predicted number of annual collisions across the local network without the beta factor would be 337, with beta reducing this to 228 collisions per annum. The additional Sizewell C traffic is forecast to add 18 collisions to the local highway network based on the peak construction flows. This would give a percentage change of between 5.3% and 7.8% per annum in the number of collisions. The severity split of the additional 18 collisions per annum is forecast to be 15 slight, 2-3 serious collisions and less than one fatal collision per year (c. one fatal collision in four years) during the peak construction. The increase in collisions is an aggregated value across the whole network within the study area with the change on any individual link being different.
- 3.3 In 2034, the forecast number of collisions without beta would be 361 each year and this is forecast to reduce to 208 collisions per annum taking beta into account. Sizewell C traffic would add no collisions per annum.
- 3.4 The change in RTC due to Sizewell C traffic is shown in **Table 3.1**.

**Table 3.1: Change in RTC due to Sizewell C traffic**

Scenario	2023 early years collisions pa	2028 peak construction collisions pa	2034 operational collisions pa
Reference Case without beta	317	337	361
Reference Case with beta	260	228	208
Sizewell C	14	18	0
SZC change	4.4% - 5.4%	5.3% - 7.8%	0%

- 3.4 The number of additional collisions varies by link throughout the network because the percentage change in traffic volumes resulting from Sizewell C varies across the network.

### 4.0 CONCLUSIONS

- 4.1 This output and these findings have informed the Health and Wellbeing Assessment described in **Chapter 2** of the **ES Addendum** (Doc Ref. 6.14), noting that the significant reduction in collisions across the network (due to the beta factor) far outweighs the effect of the Sizewell C additional traffic.



- 4.2 The analysis does not take account of changing vehicle composition during the Sizewell C construction phase. However, elements of the **Construction Traffic Management Plan** (Doc Ref. 8.7) [APP-608] such as HGV driver rules, induction for HGV drivers at the Freight Management Facility and HGV routes tracked using GPS, plus a construction worker code of conduct that includes driver rules, will all act to reduce the likelihood of collisions.

## REFERENCES

COBALT User Guide Version 2013.02 November 2015 Department for Transport  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/488064/cobalt-user-manual.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/488064/cobalt-user-manual.pdf)