Appendix D – Junction Modelling Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J1 Shaw Lane_Site Access.j9
Path: \\rsbgukfs01\WAKEngineer\data\102107 - Shaw Lane, Barnsley\Calcs\30-11-2021
Report generation date: 15/12/2021 09:54:08

Summary of junction performance

	Weekday AM + Dev					Weekday PM + Dev				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2022									
Stream B-AC	0.2	10.00	0.20	A	123 %	0.1	9.47	0.11	A	145 %
Stream C-AB	0.0	5.18	0.01	A	[Stream B-AC]	0.0	5.19	0.03	A	[Stream B-AC]
	2027									
Stream B-AC	0.3	10.13	0.20	B	118 %	0.1	9.61	0.11	A	137 %
Stream C-AB	0.0	5.15	0.01	A	[Stream B-AC]	0.0	5.16	0.03	A	[Stream B-AC]

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Shaw Lane / Site Access
Location	
Site number	
Date	02/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\JGreen
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	Weekday AM + Dev	ONE HOUR	07:30	09:00	15
D2	2022	Weekday PM + Dev	ONE HOUR	15:45	17:15	15
D3	2027	Weekday AM + Dev	ONE HOUR	07:30	09:00	15
D4	2027	Weekday PM + Dev	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, Weekday AM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Shaw Lane (E) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Shaw Lane / Site Access	T-Junction	Two-way	1.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	123	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Shaw Lane (W)		Major
B	Site Access		Minor
C	Shaw Lane (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Shaw Lane (E)	5.95			90.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.00	98	81

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	550	0.100	0.254	0.160	0.363
1	B-C	675	0.104	0.262	-	-
1	C-B	626	0.243	0.243	-	-

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

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	Weekday AM + Dev	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Shaw Lane (W)		✓	286	100.000
B - Site Access		✓	82	100.000
C - Shaw Lane (E)		✓	252	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	23	263
	B - Site Access	68	0	14
	C - Shaw Lane (E)	247	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	0	0
	B - Site Access	0	0	0
	C - Shaw Lane (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.00	0.2	A
C-AB	0.01	5.18	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	62	488	0.127	61	0.1	8.426	A
C-AB	5	700	0.007	5	0.0	5.177	A
C-A	185			185			
A-B	17			17			
A-C	198			198			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	74	472	0.156	74	0.2	9.027	A
C-AB	7	716	0.009	7	0.0	5.072	A
C-A	220			220			
A-B	21			21			
A-C	236			236			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	90	450	0.200	90	0.2	9.982	A
C-AB	9	738	0.012	9	0.0	4.932	A
C-A	269			269			
A-B	25			25			
A-C	290			290			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	90	450	0.200	90	0.2	9.996	A
C-AB	9	738	0.012	9	0.0	4.932	A
C-A	269			269			
A-B	25			25			
A-C	290			290			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	74	472	0.156	74	0.2	9.045	A
C-AB	7	716	0.009	7	0.0	5.073	A
C-A	220			220			
A-B	21			21			
A-C	236			236			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	62	488	0.127	62	0.1	8.454	A
C-AB	5	700	0.007	5	0.0	5.179	A
C-A	185			185			
A-B	17			17			
A-C	198			198			

2022, Weekday PM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Shaw Lane (E) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Shaw Lane / Site Access	T-Junction	Two-way	0.70	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	145	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022	Weekday PM + Dev	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Shaw Lane (W)		✓	367	100.000
B - Site Access		✓	41	100.000
C - Shaw Lane (E)		✓	300	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	66	301
	B - Site Access	34	0	7
	C - Shaw Lane (E)	287	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	0	0
	B - Site Access	0	0	0
	C - Shaw Lane (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	9.47	0.1	A
C-AB	0.03	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	31	471	0.066	31	0.1	8.171	A
C-AB	14	708	0.020	14	0.0	5.188	A
C-A	212			212			
A-B	50			50			
A-C	227			227			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	37	452	0.082	37	0.1	8.673	A
C-AB	18	726	0.025	18	0.0	5.087	A
C-A	252			252			
A-B	59			59			
A-C	271			271			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	45	425	0.106	45	0.1	9.462	A
C-AB	25	751	0.033	25	0.0	4.955	A
C-A	306			306			
A-B	73			73			
A-C	331			331			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	45	425	0.106	45	0.1	9.468	A
C-AB	25	751	0.033	25	0.0	4.955	A
C-A	306			306			
A-B	73			73			
A-C	331			331			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	37	452	0.082	37	0.1	8.680	A
C-AB	18	726	0.025	18	0.0	5.090	A
C-A	252			252			
A-B	59			59			
A-C	271			271			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	31	471	0.066	31	0.1	8.184	A
C-AB	14	708	0.020	14	0.0	5.191	A
C-A	212			212			
A-B	50			50			
A-C	227			227			

2027, Weekday AM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Shaw Lane (E) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Shaw Lane / Site Access	T-Junction	Two-way	1.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	118	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027	Weekday AM + Dev	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Shaw Lane (W)		✓	297	100.000
B - Site Access		✓	82	100.000
C - Shaw Lane (E)		✓	263	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	23	274
	B - Site Access	68	0	14
	C - Shaw Lane (E)	258	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	0	0
	B - Site Access	0	0	0
	C - Shaw Lane (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.13	0.3	B
C-AB	0.01	5.15	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	62	485	0.127	61	0.1	8.492	A
C-AB	5	704	0.007	5	0.0	5.149	A
C-A	193			193			
A-B	17			17			
A-C	206			206			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	74	468	0.157	74	0.2	9.118	A
C-AB	7	721	0.009	7	0.0	5.040	A
C-A	230			230			
A-B	21			21			
A-C	246			246			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	90	446	0.203	90	0.3	10.120	B
C-AB	9	744	0.012	9	0.0	4.894	A
C-A	281			281			
A-B	25			25			
A-C	302			302			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	90	446	0.203	90	0.3	10.133	B
C-AB	9	744	0.012	9	0.0	4.896	A
C-A	281			281			
A-B	25			25			
A-C	302			302			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	74	468	0.157	74	0.2	9.139	A
C-AB	7	721	0.009	7	0.0	5.040	A
C-A	230			230			
A-B	21			21			
A-C	246			246			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	62	485	0.127	62	0.1	8.521	A
C-AB	5	704	0.007	5	0.0	5.151	A
C-A	193			193			
A-B	17			17			
A-C	206			206			

2027, Weekday PM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Shaw Lane (E) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Shaw Lane / Site Access	T-Junction	Two-way	0.69	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	137	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027	Weekday PM + Dev	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Shaw Lane (W)		✓	380	100.000
B - Site Access		✓	41	100.000
C - Shaw Lane (E)		✓	312	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	66	314
	B - Site Access	34	0	7
	C - Shaw Lane (E)	299	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Shaw Lane (W)	B - Site Access	C - Shaw Lane (E)
From	A - Shaw Lane (W)	0	0	0
	B - Site Access	0	0	0
	C - Shaw Lane (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	9.61	0.1	A
C-AB	0.03	5.16	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	31	467	0.066	31	0.1	8.243	A
C-AB	14	712	0.020	14	0.0	5.159	A
C-A	221			221			
A-B	50			50			
A-C	236			236			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	37	447	0.082	37	0.1	8.771	A
C-AB	19	731	0.025	18	0.0	5.054	A
C-A	262			262			
A-B	59			59			
A-C	282			282			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	45	420	0.108	45	0.1	9.605	A
C-AB	25	758	0.033	25	0.0	4.915	A
C-A	318			318			
A-B	73			73			
A-C	346			346			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	45	420	0.108	45	0.1	9.611	A
C-AB	25	758	0.034	25	0.0	4.917	A
C-A	318			318			
A-B	73			73			
A-C	346			346			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	37	447	0.082	37	0.1	8.778	A
C-AB	19	731	0.025	19	0.0	5.055	A
C-A	262			262			
A-B	59			59			
A-C	282			282			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	31	467	0.066	31	0.1	8.258	A
C-AB	14	712	0.020	14	0.0	5.161	A
C-A	221			221			
A-B	50			50			
A-C	236			236			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947

Filename: J2 Church St_Shaw Ln_ Fish Dam Ln.j9
Path: \\rsbgukfs01\WAKEngineer\data\102107 - Shaw Lane, Barnsley\Calcs\30-11-2021
Report generation date: 15/12/2021 09:58:56

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2018 Weekday Observed										
Stream B-C	0.6	35.06	0.39	E	-8 %	0.1	14.21	0.11	B	7 %
Stream B-A	4.1	56.04	0.83	F	[Stream B-A]	1.9	27.21	0.67	D	[Stream B-A]
Stream C-AB	0.3	5.32	0.13	A		0.4	5.74	0.18	A	
2022 Weekday Factored										
Stream B-C	1.7	95.90	0.69	F	-12 %	0.1	16.48	0.13	C	2 %
Stream B-A	6.3	82.89	0.90	F	[Stream B-A]	2.4	32.05	0.71	D	[Stream B-A]
Stream C-AB	0.4	5.30	0.14	A		0.5	5.77	0.20	A	
2027 Weekday Factored										
Stream B-C	4.3	222.17	0.94	F	-15 %	0.2	19.82	0.16	C	-2 %
Stream B-A	10.7	128.91	0.98	F	[Stream B-A]	2.9	38.34	0.76	E	[Stream B-A]
Stream C-AB	0.4	5.29	0.15	A		0.5	5.81	0.21	A	
2022 Weekday Peak + Development										
Stream B-C	8.8	284.84	1.09	F	-20 %	0.4	26.26	0.30	D	-6 %
Stream B-A	19.9	219.18	1.09	F	[Stream B-A]	3.6	47.79	0.80	E	[Stream B-A]
Stream C-AB	0.5	5.52	0.19	A		0.8	6.98	0.33	A	
2027 Weekday Peak + Development										
Stream B-C	11.5	360.04	1.16	F	-23 %	0.7	42.33	0.41	E	-9 %
Stream B-A	28.5	298.31	1.16	F	[Stream B-A]	4.9	62.77	0.86	F	[Stream B-A]
Stream C-AB	0.6	5.54	0.21	A		0.9	7.09	0.35	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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Church Street / Shaw Lane / Fish Dam Lane
Location	
Site number	
Date	02/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\JGreen
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Weekday Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	11.74	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	Church Street		Major
B	Shaw Lane		Minor
C	Fish Dam Lane		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Fish Dam Lane	8.05			51.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Shaw Lane	One lane plus flare	10.00	6.10	5.15	4.60	3.80		1.00	23	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	573	0.095	0.240	0.151	0.343
1	B-C	578	0.081	0.204	-	-
1	C-B	603	0.213	0.213	-	-

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

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	660	100.000
B - Shaw Lane		✓	317	100.000
C - Fish Dam Lane		✓	466	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	241	419
	B - Shaw Lane	257	0	60
	C - Fish Dam Lane	427	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.39	35.06	0.6	E
B-A	0.83	56.04	4.1	F
C-AB	0.13	5.32	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	404	0.112	45	0.1	10.003	B
B-A	193	419	0.461	190	0.8	15.489	C
C-AB	52	730	0.072	52	0.1	5.306	A
C-A	298			298			
A-B	181			181			
A-C	315			315			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	54	334	0.162	54	0.2	12.852	B
B-A	231	388	0.595	229	1.4	22.264	C
C-AB	71	759	0.094	71	0.2	5.233	A
C-A	348			348			
A-B	217			217			
A-C	377			377			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	187	0.354	65	0.5	29.179	D
B-A	283	343	0.826	274	3.7	47.111	E
C-AB	104	802	0.130	104	0.3	5.164	A
C-A	409			409			
A-B	265			265			
A-C	461			461			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	66	168	0.394	66	0.6	35.057	E
B-A	283	342	0.827	281	4.1	56.040	F
C-AB	105	802	0.130	105	0.3	5.169	A
C-A	408			408			
A-B	265			265			
A-C	461			461			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	54	316	0.171	56	0.2	13.886	B
B-A	231	388	0.596	241	1.6	26.013	D
C-AB	71	760	0.094	72	0.2	5.242	A
C-A	347			347			
A-B	217			217			
A-C	377			377			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	398	0.113	45	0.1	10.211	B
B-A	193	419	0.461	196	0.9	16.316	C
C-AB	53	731	0.072	53	0.1	5.320	A
C-A	298			298			
A-B	181			181			
A-C	315			315			

2018 Weekday Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	6.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	505	100.000
B - Shaw Lane		✓	268	100.000
C - Fish Dam Lane		✓	417	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	245	260
	B - Shaw Lane	240	0	28
	C - Fish Dam Lane	354	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	14.21	0.1	B
B-A	0.67	27.21	1.9	D
C-AB	0.18	5.74	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	21	433	0.049	21	0.1	8.727	A
B-A	181	453	0.399	178	0.6	12.968	B
C-AB	76	712	0.107	75	0.2	5.654	A
C-A	238			238			
A-B	184			184			
A-C	196			196			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	25	384	0.066	25	0.1	10.023	B
B-A	216	429	0.503	214	1.0	16.662	C
C-AB	100	736	0.136	100	0.3	5.667	A
C-A	275			275			
A-B	220			220			
A-C	234			234			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	31	290	0.106	31	0.1	13.889	B
B-A	264	396	0.668	261	1.9	26.004	D
C-AB	141	770	0.183	141	0.4	5.728	A
C-A	318			318			
A-B	270			270			
A-C	286			286			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	31	284	0.108	31	0.1	14.209	B
B-A	264	396	0.668	264	1.9	27.207	D
C-AB	141	770	0.183	141	0.4	5.737	A
C-A	318			318			
A-B	270			270			
A-C	286			286			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	25	379	0.066	25	0.1	10.188	B
B-A	216	429	0.503	219	1.0	17.441	C
C-AB	100	736	0.137	101	0.3	5.681	A
C-A	274			274			
A-B	220			220			
A-C	234			234			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	21	430	0.049	21	0.1	8.806	A
B-A	181	453	0.399	182	0.7	13.366	B
C-AB	76	712	0.107	77	0.2	5.672	A
C-A	238			238			
A-B	184			184			
A-C	196			196			

2022 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	19.09	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	690	100.000
B - Shaw Lane		✓	332	100.000
C - Fish Dam Lane		✓	488	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	252	438
	B - Shaw Lane	269	0	63
	C - Fish Dam Lane	447	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.69	95.90	1.7	F
B-A	0.90	82.89	6.3	F
C-AB	0.14	5.30	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	47	390	0.122	47	0.1	10.452	B
B-A	203	412	0.491	199	0.9	16.610	C
C-AB	57	737	0.077	56	0.1	5.285	A
C-A	311			311			
A-B	190			190			
A-C	330			330			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	309	0.183	56	0.2	14.222	B
B-A	242	379	0.638	239	1.6	25.192	D
C-AB	78	768	0.101	77	0.2	5.216	A
C-A	361			361			
A-B	227			227			
A-C	394			394			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	69	135	0.515	66	0.9	50.776	F
B-A	296	330	0.897	282	5.2	61.746	F
C-AB	115	813	0.141	114	0.4	5.156	A
C-A	422			422			
A-B	277			277			
A-C	482			482			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	69	101	0.687	66	1.7	95.901	F
B-A	296	329	0.902	292	6.3	82.891	F
C-AB	115	814	0.142	115	0.4	5.165	A
C-A	422			422			
A-B	277			277			
A-C	482			482			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	277	0.204	62	0.3	17.163	C
B-A	242	377	0.642	259	1.9	34.245	D
C-AB	78	769	0.101	79	0.2	5.227	A
C-A	361			361			
A-B	227			227			
A-C	394			394			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	47	382	0.124	48	0.1	10.777	B
B-A	203	412	0.492	206	1.0	17.801	C
C-AB	57	738	0.077	57	0.1	5.300	A
C-A	310			310			
A-B	190			190			
A-C	330			330			

2022 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	7.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	527	100.000
B - Shaw Lane		✓	281	100.000
C - Fish Dam Lane		✓	436	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	256	271
	B - Shaw Lane	251	0	30
	C - Fish Dam Lane	370	66	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	16.48	0.1	C
B-A	0.71	32.05	2.4	D
C-AB	0.20	5.77	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	23	424	0.053	22	0.1	8.963	A
B-A	189	448	0.422	186	0.7	13.628	B
C-AB	81	717	0.113	80	0.2	5.647	A
C-A	247			247			
A-B	193			193			
A-C	204			204			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	27	368	0.073	27	0.1	10.536	B
B-A	226	422	0.534	224	1.1	18.009	C
C-AB	108	743	0.145	108	0.3	5.674	A
C-A	284			284			
A-B	230			230			
A-C	244			244			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	33	259	0.127	33	0.1	15.875	C
B-A	276	387	0.714	272	2.2	30.031	D
C-AB	153	779	0.197	153	0.5	5.756	A
C-A	327			327			
A-B	282			282			
A-C	298			298			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	33	251	0.131	33	0.1	16.481	C
B-A	276	387	0.714	276	2.4	32.054	D
C-AB	153	779	0.197	153	0.5	5.767	A
C-A	327			327			
A-B	282			282			
A-C	298			298			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	27	361	0.075	27	0.1	10.793	B
B-A	226	422	0.535	230	1.2	19.183	C
C-AB	108	743	0.146	109	0.3	5.692	A
C-A	284			284			
A-B	230			230			
A-C	244			244			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	23	420	0.054	23	0.1	9.066	A
B-A	189	447	0.422	191	0.8	14.129	B
C-AB	82	718	0.114	82	0.2	5.674	A
C-A	247			247			
A-B	193			193			
A-C	204			204			

2027 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	32.52	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	720	100.000
B - Shaw Lane		✓	346	100.000
C - Fish Dam Lane		✓	508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	263	457
	B - Shaw Lane	281	0	65
	C - Fish Dam Lane	465	43	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.94	222.17	4.3	F
B-A	0.98	128.91	10.7	F
C-AB	0.15	5.29	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	375	0.130	48	0.1	10.997	B
B-A	212	405	0.522	207	1.0	17.846	C
C-AB	61	743	0.082	61	0.2	5.273	A
C-A	321			321			
A-B	198			198			
A-C	344			344			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	282	0.207	58	0.3	16.029	C
B-A	253	370	0.682	249	2.0	28.783	D
C-AB	84	776	0.109	84	0.2	5.207	A
C-A	372			372			
A-B	236			236			
A-C	411			411			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	76	0.945	59	3.4	164.061	F
B-A	309	318	0.971	287	7.6	82.414	F
C-AB	126	823	0.153	125	0.4	5.164	A
C-A	433			433			
A-B	290			290			
A-C	503			503			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	79	0.909	68	4.3	222.174	F
B-A	309	314	0.984	297	10.7	128.906	F
C-AB	126	824	0.153	126	0.4	5.177	A
C-A	433			433			
A-B	290			290			
A-C	503			503			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	216	0.271	74	0.4	28.024	D
B-A	253	363	0.696	285	2.6	57.160	F
C-AB	85	776	0.109	85	0.2	5.224	A
C-A	372			372			
A-B	236			236			
A-C	411			411			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	364	0.134	50	0.2	11.498	B
B-A	212	405	0.522	217	1.1	19.735	C
C-AB	62	744	0.083	62	0.2	5.287	A
C-A	321			321			
A-B	198			198			
A-C	344			344			

2027 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	8.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	550	100.000
B - Shaw Lane		✓	292	100.000
C - Fish Dam Lane		✓	454	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	267	283
	B - Shaw Lane	261	0	31
	C - Fish Dam Lane	385	69	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.16	19.82	0.2	C
B-A	0.76	38.34	2.9	E
C-AB	0.21	5.81	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	23	414	0.056	23	0.1	9.205	A
B-A	196	442	0.444	193	0.8	14.304	B
C-AB	87	722	0.120	86	0.2	5.656	A
C-A	255			255			
A-B	201			201			
A-C	213			213			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	28	352	0.079	28	0.1	11.100	B
B-A	235	416	0.564	233	1.2	19.475	C
C-AB	116	749	0.155	115	0.3	5.692	A
C-A	292			292			
A-B	240			240			
A-C	254			254			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	34	227	0.150	34	0.2	18.610	C
B-A	287	379	0.758	281	2.7	34.920	D
C-AB	166	787	0.210	165	0.5	5.797	A
C-A	334			334			
A-B	294			294			
A-C	312			312			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	34	216	0.158	34	0.2	19.824	C
B-A	287	379	0.759	287	2.9	38.344	E
C-AB	166	787	0.211	166	0.5	5.807	A
C-A	334			334			
A-B	294			294			
A-C	312			312			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	28	342	0.082	28	0.1	11.504	B
B-A	235	416	0.565	241	1.4	21.265	C
C-AB	116	749	0.155	117	0.3	5.710	A
C-A	292			292			
A-B	240			240			
A-C	254			254			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	23	409	0.057	23	0.1	9.337	A
B-A	196	442	0.445	199	0.8	14.932	B
C-AB	87	723	0.121	88	0.2	5.681	A
C-A	255			255			
A-B	201			201			
A-C	213			213			

2022 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	59.62	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-20	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	698	100.000
B - Shaw Lane		✓	400	100.000
C - Fish Dam Lane		✓	503	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	260	438
	B - Shaw Lane	292	0	108
	C - Fish Dam Lane	447	56	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	1.09	284.84	8.8	F
B-A	1.09	219.18	19.9	F
C-AB	0.19	5.52	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	81	377	0.216	80	0.3	12.097	B
B-A	220	392	0.561	215	1.2	19.861	C
C-AB	78	736	0.105	77	0.2	5.459	A
C-A	301			301			
A-B	196			196			
A-C	330			330			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	268	0.362	96	0.5	20.761	C
B-A	263	354	0.742	257	2.5	35.491	E
C-AB	106	767	0.139	106	0.3	5.451	A
C-A	346			346			
A-B	234			234			
A-C	394			394			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119	110	1.086	96	6.3	173.080	F
B-A	321	300	1.072	283	12.2	120.016	F
C-AB	158	812	0.194	157	0.5	5.506	A
C-A	396			396			
A-B	286			286			
A-C	482			482			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119	115	1.032	109	8.8	284.836	F
B-A	321	296	1.086	290	19.9	219.180	F
C-AB	158	813	0.194	158	0.5	5.516	A
C-A	396			396			
A-B	286			286			
A-C	482			482			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	97	129	0.755	115	4.5	212.051	F
B-A	263	333	0.789	318	6.1	161.122	F
C-AB	107	768	0.139	107	0.3	5.471	A
C-A	345			345			
A-B	234			234			
A-C	394			394			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	81	346	0.235	98	0.3	15.435	C
B-A	220	384	0.572	239	1.4	27.441	D
C-AB	78	737	0.106	79	0.2	5.480	A
C-A	300			300			
A-B	196			196			
A-C	330			330			

2022 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	11.42	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	549	100.000
B - Shaw Lane		✓	314	100.000
C - Fish Dam Lane		✓	480	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	278	271
	B - Shaw Lane	262	0	52
	C - Fish Dam Lane	370	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.30	26.26	0.4	D
B-A	0.80	47.79	3.6	E
C-AB	0.33	6.98	0.8	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	39	418	0.094	39	0.1	9.494	A
B-A	197	429	0.459	194	0.8	15.093	C
C-AB	136	714	0.190	134	0.4	6.202	A
C-A	226			226			
A-B	209			209			
A-C	204			204			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	47	350	0.134	47	0.2	11.851	B
B-A	236	401	0.588	233	1.4	21.218	C
C-AB	181	739	0.244	180	0.5	6.448	A
C-A	251			251			
A-B	250			250			
A-C	244			244			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	210	0.272	56	0.4	23.281	C
B-A	288	360	0.800	281	3.3	41.636	E
C-AB	257	775	0.331	256	0.8	6.942	A
C-A	272			272			
A-B	306			306			
A-C	298			298			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	57	194	0.295	57	0.4	26.257	D
B-A	288	360	0.802	287	3.6	47.792	E
C-AB	257	776	0.332	257	0.8	6.975	A
C-A	271			271			
A-B	306			306			
A-C	298			298			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	47	335	0.139	48	0.2	12.558	B
B-A	236	400	0.588	244	1.5	24.076	C
C-AB	181	740	0.245	182	0.5	6.486	A
C-A	250			250			
A-B	250			250			
A-C	244			244			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	39	412	0.095	39	0.1	9.673	A
B-A	197	429	0.460	200	0.9	15.880	C
C-AB	137	715	0.191	137	0.4	6.248	A
C-A	225			225			
A-B	209			209			
A-C	204			204			

2027 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	78.87	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	728	100.000
B - Shaw Lane		✓	415	100.000
C - Fish Dam Lane		✓	523	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	271	457
	B - Shaw Lane	304	0	111
	C - Fish Dam Lane	465	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	1.16	360.04	11.5	F
B-A	1.16	298.31	28.5	F
C-AB	0.21	5.54	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	84	358	0.233	82	0.3	12.986	B
B-A	229	385	0.595	223	1.4	21.649	C
C-AB	83	742	0.111	82	0.2	5.451	A
C-A	311			311			
A-B	204			204			
A-C	344			344			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100	234	0.426	98	0.7	26.193	D
B-A	273	344	0.794	266	3.2	42.703	E
C-AB	114	775	0.147	113	0.3	5.454	A
C-A	356			356			
A-B	244			244			
A-C	411			411			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	122	105	1.161	95	7.6	204.089	F
B-A	335	292	1.145	282	16.4	153.032	F
C-AB	171	822	0.207	170	0.6	5.531	A
C-A	405			405			
A-B	298			298			
A-C	503			503			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	122	110	1.110	106	11.5	360.039	F
B-A	335	289	1.157	287	28.5	298.309	F
C-AB	171	823	0.208	171	0.6	5.543	A
C-A	405			405			
A-B	298			298			
A-C	503			503			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100	123	0.810	116	7.5	300.499	F
B-A	273	327	0.837	316	17.9	266.433	F
C-AB	114	775	0.148	115	0.4	5.471	A
C-A	356			356			
A-B	244			244			
A-C	411			411			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	84	247	0.338	111	0.5	31.897	D
B-A	229	371	0.617	293	1.8	72.050	F
C-AB	83	743	0.112	84	0.2	5.473	A
C-A	310			310			
A-B	204			204			
A-C	344			344			

2027 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street / Shaw Lane / Fish Dam Lane	T-Junction	Two-way	15.00	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Street		✓	572	100.000
B - Shaw Lane		✓	326	100.000
C - Fish Dam Lane		✓	498	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	289	283
	B - Shaw Lane	273	0	53
	C - Fish Dam Lane	385	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Street	B - Shaw Lane	C - Fish Dam Lane
From	A - Church Street	0	0	0
	B - Shaw Lane	0	0	0
	C - Fish Dam Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.41	42.33	0.7	E
B-A	0.86	62.77	4.9	F
C-AB	0.35	7.09	0.9	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	40	406	0.098	39	0.1	9.827	A
B-A	206	424	0.485	202	0.9	15.960	C
C-AB	143	719	0.198	141	0.4	6.221	A
C-A	232			232			
A-B	218			218			
A-C	213			213			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	48	329	0.145	47	0.2	12.759	B
B-A	245	394	0.622	243	1.5	23.364	C
C-AB	191	746	0.256	190	0.6	6.491	A
C-A	257			257			
A-B	260			260			
A-C	254			254			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	167	0.349	57	0.5	32.254	D
B-A	301	352	0.854	290	4.2	50.931	F
C-AB	273	783	0.348	271	0.9	7.051	A
C-A	275			275			
A-B	318			318			
A-C	312			312			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	142	0.411	58	0.7	42.326	E
B-A	301	351	0.857	298	4.9	62.773	F
C-AB	274	784	0.349	274	0.9	7.092	A
C-A	275			275			
A-B	318			318			
A-C	312			312			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	48	306	0.156	50	0.2	14.115	B
B-A	245	393	0.624	258	1.8	28.543	D
C-AB	191	747	0.256	193	0.6	6.538	A
C-A	256			256			
A-B	260			260			
A-C	254			254			

17:00 - 17:15

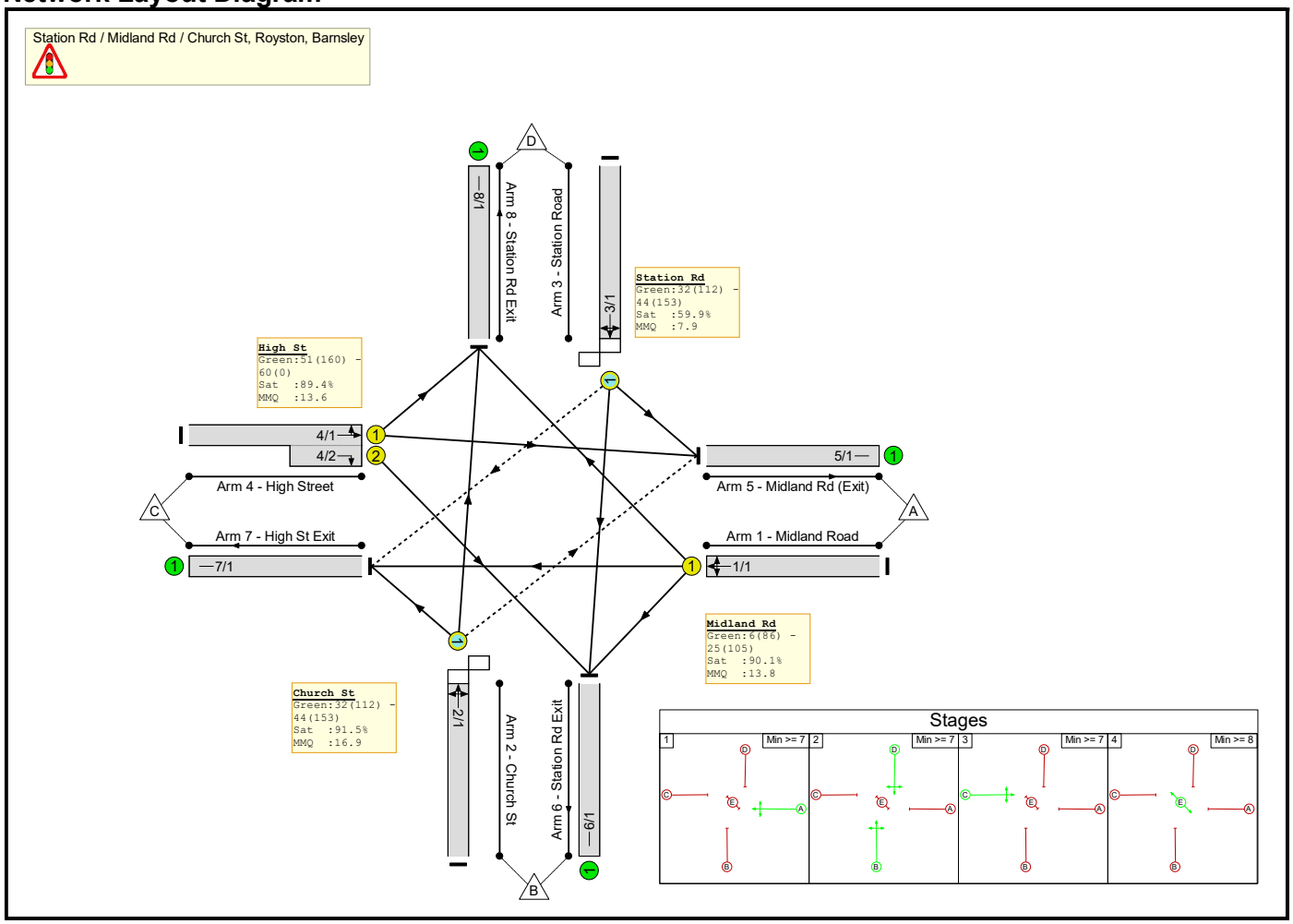
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	40	398	0.100	40	0.1	10.063	B
B-A	206	423	0.485	209	1.0	16.998	C
C-AB	143	720	0.199	144	0.4	6.272	A
C-A	232			232			
A-B	218			218			
A-C	213			213			

Full Input Data And Results

User and Project Details

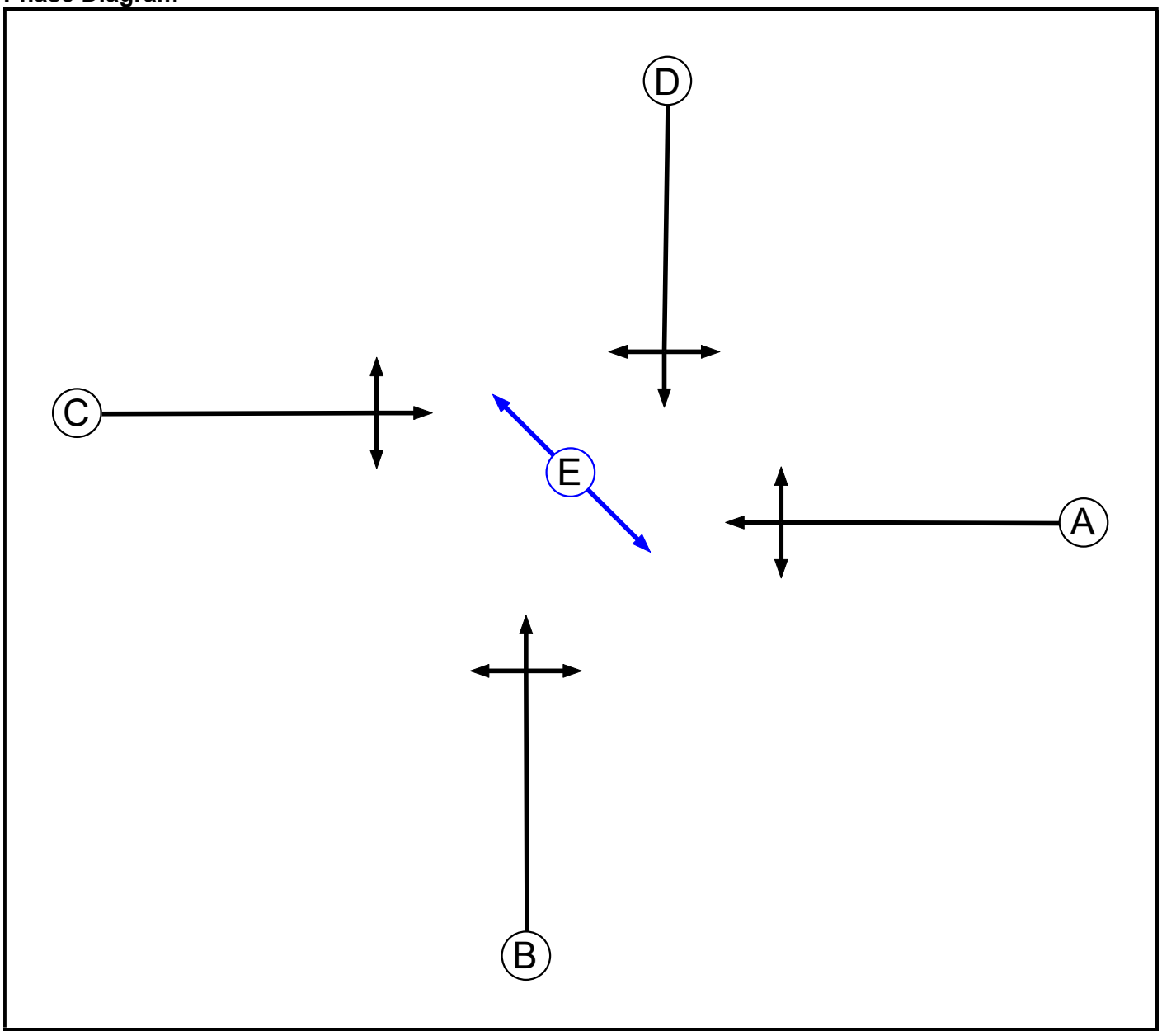
Project:	
Title:	
Location:	
Additional detail:	
File name:	151221 Midland Road_Station Road - 216 units.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

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	Pedestrian		8	8

Full Input Data And Results

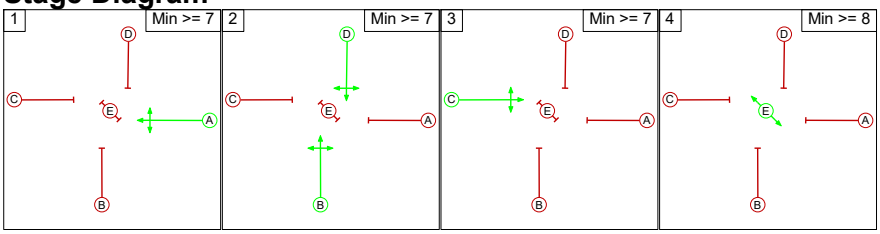
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		7	7	7	8
	B	7		7	-	8
	C	6	7		7	8
	D	7	-	7		8
	E	10	10	10	10	

Phases in Stage

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

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
From Stage	1		7	7	8
	2	7		7	8
	3	6	7		8
	4	10	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley											
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 (Church St)	5/1 (Right)	1440	0	3/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	1.00	0.50	2	2.00
3/1 (Station Road)	7/1 (Right)	1440	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	2.00	1.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley												
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 (Midland Road)	U	A	2	3	60.0	User	1794	-	-	-	-	-
2/1 (Church St)	O	B	2	3	60.0	User	1664	-	-	-	-	-
3/1 (Station Road)	O	D	2	3	60.0	User	1709	-	-	-	-	-
4/1 (High Street)	U	C	2	3	60.0	User	1880	-	-	-	-	-
4/2 (High Street)	U	C	2	3	5.2	User	1926	-	-	-	-	-
5/1 (Midland Rd (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Station Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (High St Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Station Rd Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2018 Weekday AM'	07:45	08:45	01:00	
2: '2018 Weekday PM'	16:00	17:00	01:00	
3: '2022 Weekday Without Development AM'	07:45	08:45	01:00	
4: '2022 Weekday Without Development PM'	16:00	17:00	01:00	
5: '2022 Weekday AM + Dev'	07:45	08:45	01:00	
6: '2022 Weekday PM + Dev'	16:00	17:00	01:00	
7: '2027 Weekday Without Development AM'	07:45	08:45	01:00	
8: '2027 Weekday Without Development PM'	16:00	17:00	01:00	
9: '2027 Weekday AM + Dev'	07:45	08:45	01:00	
10: '2027 Weekday PM + Dev'	16:00	17:00	01:00	

Scenario 1: '2018 AM Peak Observed Flows' (FG1: '2018 Weekday AM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	116	154	68	338
	B	57	0	129	182	368
	C	160	150	0	25	335
	D	38	153	10	0	201
	Tot.	255	419	293	275	1242

Traffic Lane Flows

Lane	Scenario 1: 2018 AM Peak Observed Flows
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	338
2/1	368
3/1	201
4/1 (with short)	335(In) 185(Out)
4/2 (short)	150
5/1	255
6/1	419
7/1	293
8/1	275

Full Input Data And Results

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2018 PM Peak Observed Flows' (FG2: '2018 Weekday PM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	85	195	49	329
	B	109	0	112	115	336
	C	194	131	0	37	362
	D	83	156	33	0	272
	Tot.	386	372	340	201	1299

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2018 PM Peak Observed Flows
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	329
2/1	336
3/1	272
4/1 (with short)	362(In) 231(Out)
4/2 (short)	131
5/1	386
6/1	372
7/1	340
8/1	201

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2022 - AM Peak Without Development' (FG3: '2022 Weekday Without Development AM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	121	162	71	354
	B	60	0	135	190	385
	C	167	157	0	26	350
	D	40	160	10	0	210
	Tot.	267	438	307	287	1299

Traffic Lane Flows

Lane	Scenario 3: 2022 - AM Peak Without Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	354
2/1	385
3/1	210
4/1 (with short)	350(In) 193(Out)
4/2 (short)	157
5/1	267
6/1	438
7/1	307
8/1	287

Full Input Data And Results

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2022 PM Peak Without Development' (FG4: '2022 Weekday Without Development PM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	89	203	51	343
	B	114	0	117	120	351
	C	203	137	0	39	379
	D	87	162	35	0	284
	Tot.	404	388	355	210	1357

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2022 PM Peak Without Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	343
2/1	351
3/1	284
4/1 (with short)	379(In) 242(Out)
4/2 (short)	137
5/1	404
6/1	388
7/1	355
8/1	210

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2022 AM Peak With Development' (FG5: '2022 Weekday AM + Dev', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	122	162	71	355
	B	61	0	137	208	406
	C	167	157	0	26	350
	D	40	166	10	0	216
	Tot.	268	445	309	305	1327

Traffic Lane Flows

Lane	Scenario 5: 2022 AM Peak With Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	355
2/1	406
3/1	216
4/1 (with short)	350(In) 193(Out)
4/2 (short)	157
5/1	268
6/1	445
7/1	309
8/1	305

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2022 PM Peak With Development' (FG6: '2022 Weekday PM + Dev', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	91	203	51	345
	B	115	0	118	129	362
	C	203	139	0	39	381
	D	87	179	35	0	301
	Tot.	405	409	356	219	1389

Traffic Lane Flows

Lane	Scenario 6: 2022 PM Peak With Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	345
2/1	362
3/1	301
4/1 (with short)	381(In) 242(Out)
4/2 (short)	139
5/1	405
6/1	409
7/1	356
8/1	219

Full Input Data And Results

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2027 AM Peak Without Development' (FG7: '2027 Weekday Without Development AM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	126	168	74	368
	B	62	0	141	198	401
	C	174	163	0	27	364
	D	41	167	11	0	219
	Tot.	277	456	320	299	1352

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2027 AM Peak Without Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	368
2/1	401
3/1	219
4/1 (with short)	364(In) 201(Out)
4/2 (short)	163
5/1	277
6/1	456
7/1	320
8/1	299

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2027 PM Peak Without Developmet' (FG8: '2027 Weekday Without Development PM', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	93	212	53	358
	B	119	0	122	125	366
	C	211	143	0	40	394
	D	91	169	36	0	296
	Tot.	421	405	370	218	1414

Traffic Lane Flows

Lane	Scenario 8: 2027 PM Peak Without Developmet
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	358
2/1	366
3/1	296
4/1 (with short)	394(In) 251(Out)
4/2 (short)	143
5/1	421
6/1	405
7/1	370
8/1	218

Full Input Data And Results

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2027 AM Peak With Development' (FG9: '2027 Weekday AM + Dev', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	127	168	74	369
	B	64	0	143	215	422
	C	174	164	0	27	365
	D	41	173	11	0	225
	Tot.	279	464	322	316	1381

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2027 AM Peak With Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	369
2/1	422
3/1	225
4/1 (with short)	365(In) 201(Out)
4/2 (short)	164
5/1	279
6/1	464
7/1	322
8/1	316

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: '2027 PM Peak With Development' (FG10: '2027 Weekday PM + Dev', Plan 4: 'Network Control Plan 4')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	94	212	53	359
	B	119	0	123	134	376
	C	211	144	0	40	395
	D	91	186	36	0	313
	Tot.	421	424	371	227	1443

Traffic Lane Flows

Lane	Scenario 10: 2027 PM Peak With Development
Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley	
1/1	359
2/1	376
3/1	313
4/1 (with short)	395(In) 251(Out)
4/2 (short)	144
5/1	421
6/1	424
7/1	371
8/1	227

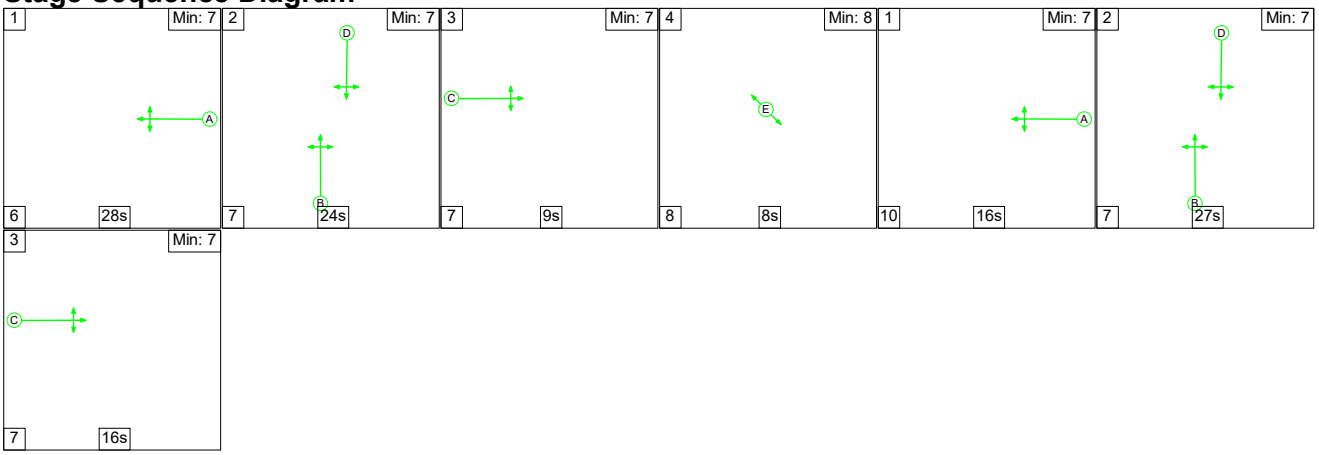
Full Input Data And Results

Lane Saturation Flows

Junction: Station Rd / Midland Rd / Church St, Royston, Barnsley								
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 (Midland Road Lane 1)	This lane uses a directly entered Saturation Flow						1794	1794
2/1 (Church St Lane 1)	This lane uses a directly entered Saturation Flow						1664	1664
3/1 (Station Road Lane 1)	This lane uses a directly entered Saturation Flow						1709	1709
4/1 (High Street Lane 1)	This lane uses a directly entered Saturation Flow						1880	1880
4/2 (High Street Lane 2)	This lane uses a directly entered Saturation Flow						1926	1926
5/1 (Midland Rd (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (High St Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Station Rd Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2018 AM Peak Observed Flows' (FG1: '2018 Weekday AM', Plan 4: 'Network Control Plan 4')

Stage Sequence Diagram

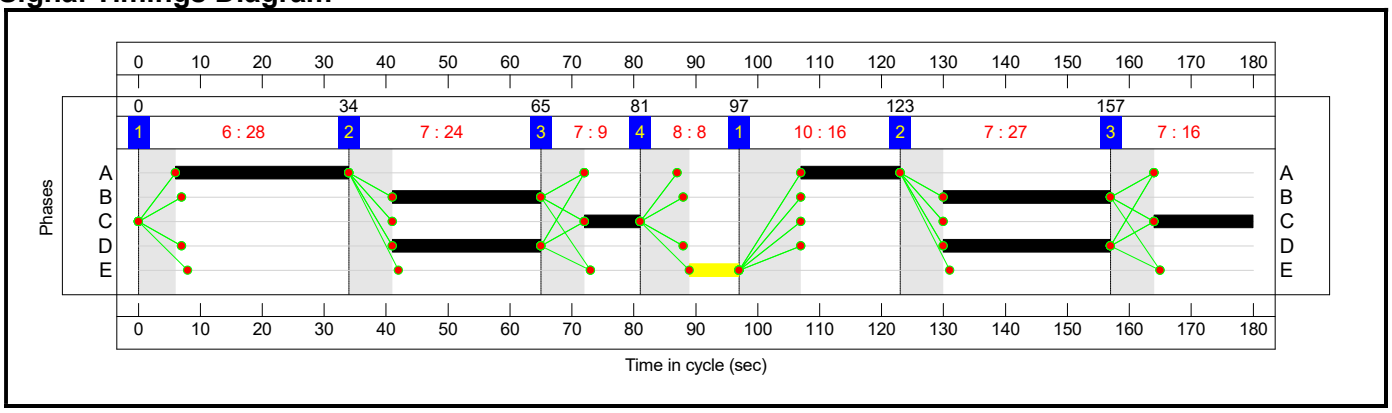


Stage Timings

Stage	1	2	3	4	1	2	3
Duration	28	24	9	8	16	27	16
Change Point	0	34	65	81	97	123	157

Full Input Data And Results

Signal Timings Diagram

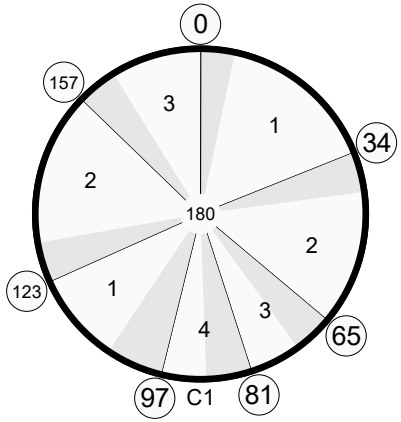


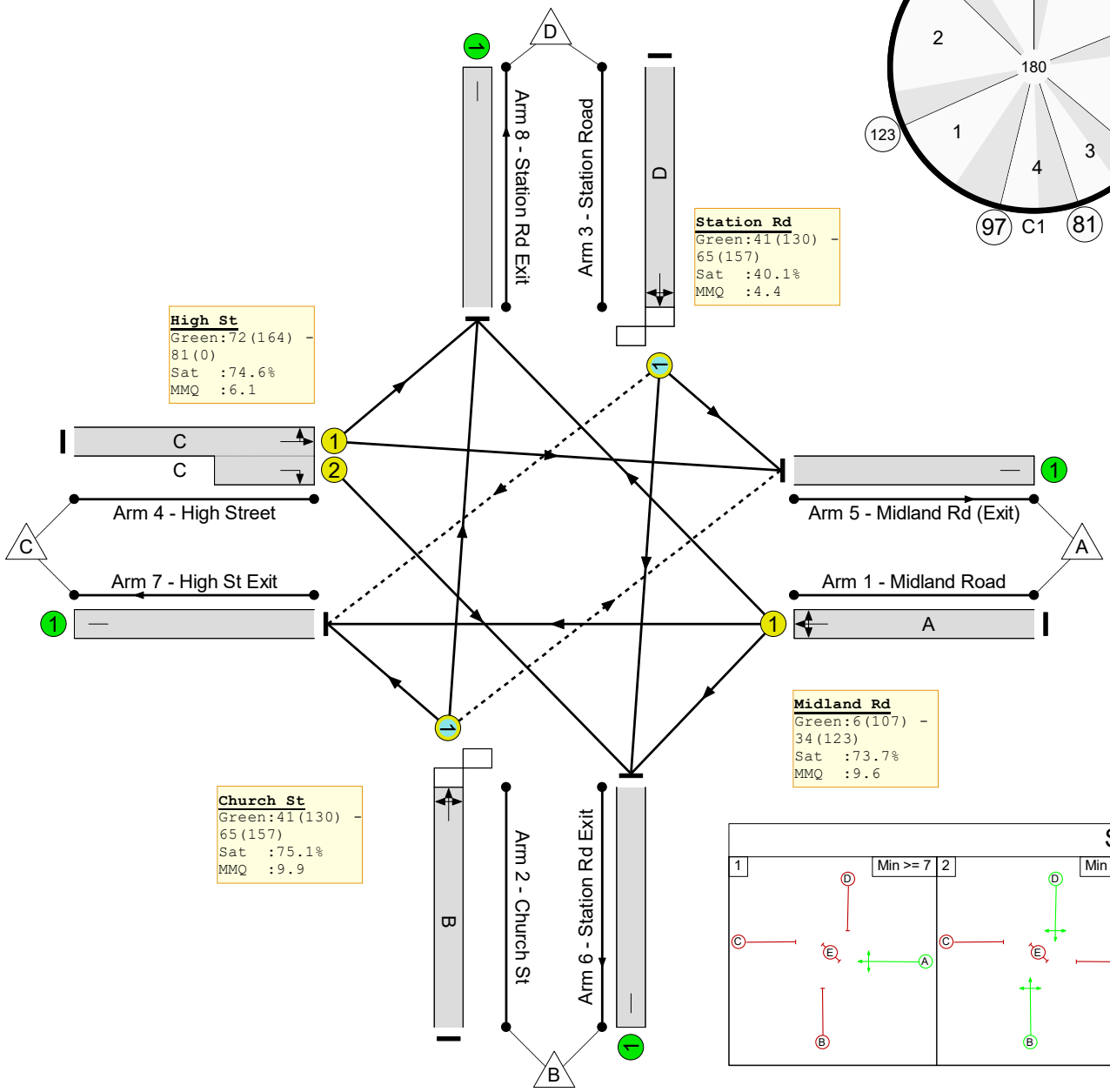
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 19.8 %
Total Traffic Delay: 15.3 pcuHr



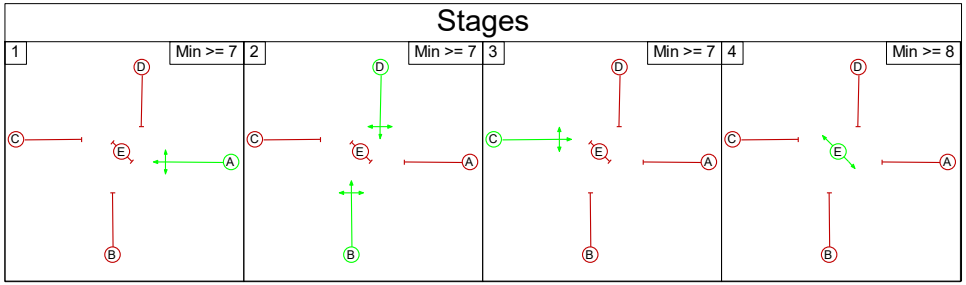


Station Rd
Green:41(130) - 65(157)
Sat :40.1%
MMQ :4.4

High St
Green:72(164) - 81(0)
Sat :74.6%
MMQ :6.1

Midland Rd
Green:6(107) - 34(123)
Sat :73.7%
MMQ :9.6

Church St
Green:41(130) - 65(157)
Sat :75.1%
MMQ :9.9



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**	-	-		-	-	-	-	-	-	**75.1%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.1%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	44	-	338	1794	458	73.7%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	51	-	368	1664	490	75.1%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	51	-	201	1709	502	40.1%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	25	-	335	1880:1926	449	74.6%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	255	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%

Full Input Data And Results

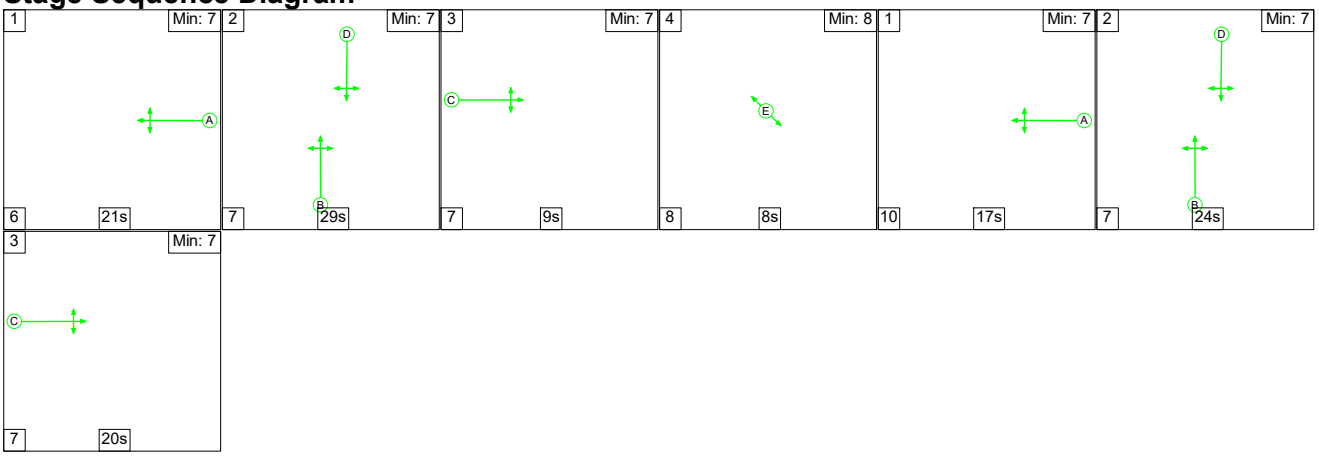
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**66**	**0**	**1**	**10.6**	**4.6**	**0.0**	**15.3**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**66**	**0**	**1**	**10.6**	**4.6**	**0.0**	**15.3**	**-**	**-**	**-**	**-**
1/1	338	338	-	-	-	2.9	1.4	-	4.3	45.5	8.3	1.4	9.6
2/1	368	368	56	0	1	2.9	1.5	0.0	4.4	43.5	8.4	1.5	9.9
3/1	201	201	10	0	0	1.4	0.3	0.0	1.8	31.7	4.0	0.3	4.4
4/1+4/2	335	335	-	-	-	3.3	1.4	-	4.8	51.3	4.6	1.4	6.1
5/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	419	419	-	-	-	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	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 19.8 Total Delay for Signalled Lanes (pcuHr): 15.25 Cycle Time (s): 180
PRC Over All Lanes (%): 19.8 Total Delay Over All Lanes(pcuHr): 15.25

Full Input Data And Results

Scenario 2: '2018 PM Peak Observed Flows' (FG2: '2018 Weekday PM', Plan 4: 'Network Control Plan 4')

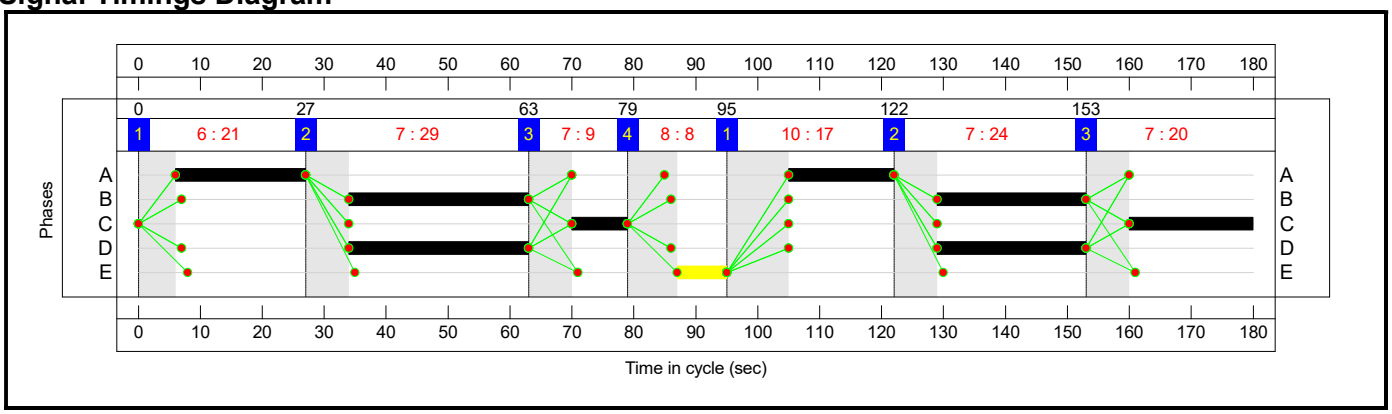
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	21	29	9	8	17	24	20
Change Point	0	27	63	79	95	122	153

Signal Timings Diagram

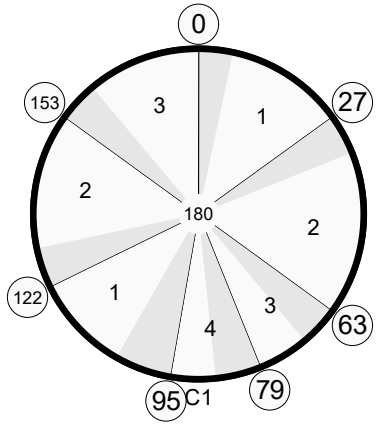


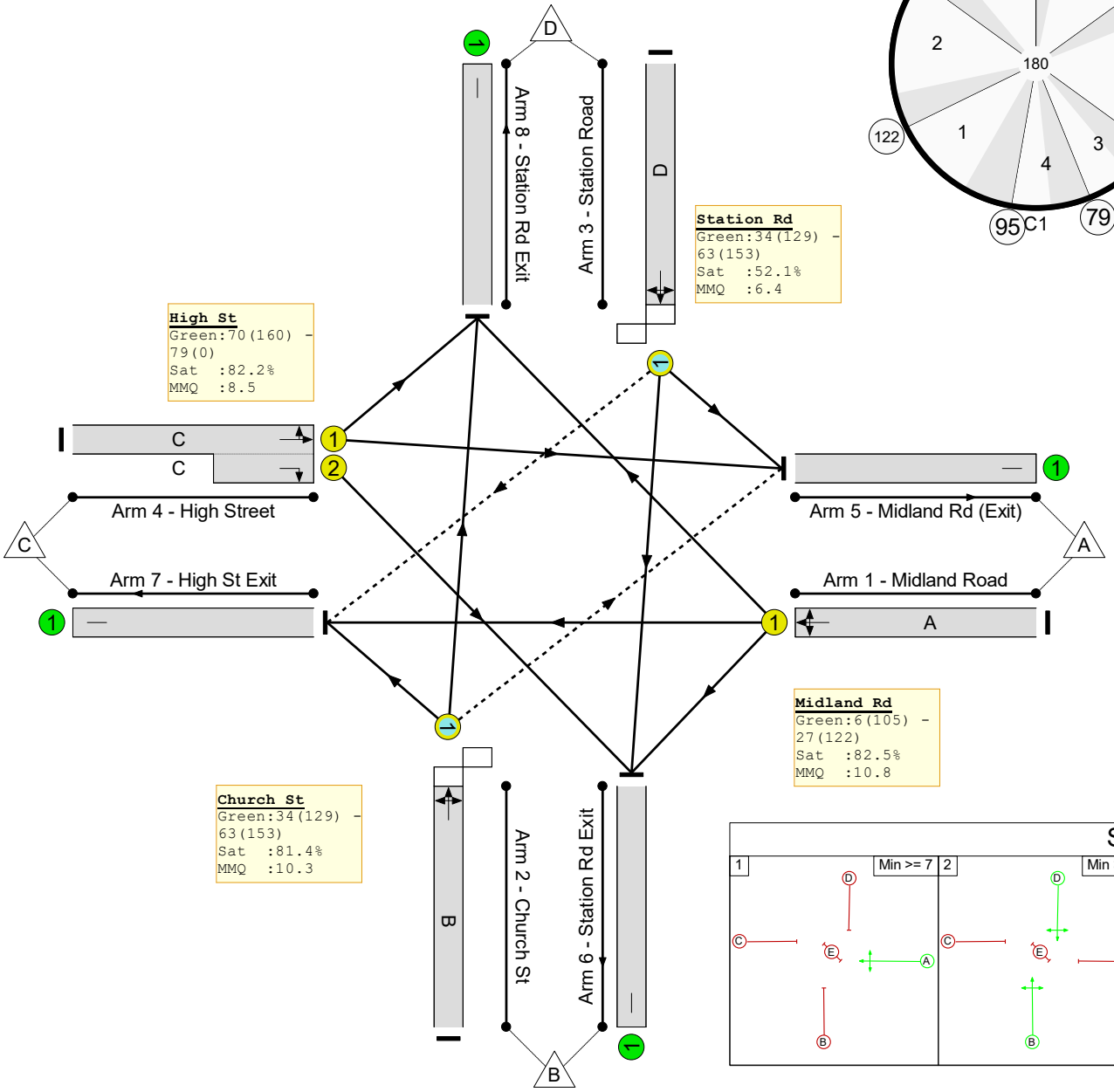
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 9.1 %
Total Traffic Delay: 18.3 pcuHr



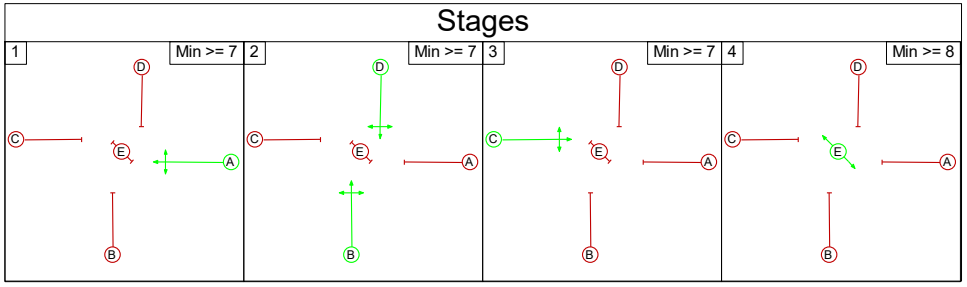


Station Rd
Green:34(129) - 63(153)
Sat :52.1%
MMQ :6.4

High St
Green:70(160) - 79(0)
Sat :82.2%
MMQ :8.5

Midland Rd
Green:6(105) - 27(122)
Sat :82.5%
MMQ :10.8

Church St
Green:34(129) - 63(153)
Sat :81.4%
MMQ :10.3



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**	-	-		-	-	-	-	-	-	**82.5%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.5%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	38	-	329	1794	399	82.5%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	53	-	336	1664	413	81.4%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	53	-	272	1709	522	52.1%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	29	-	362	1880:1926	440	82.2%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	386	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%

Full Input Data And Results

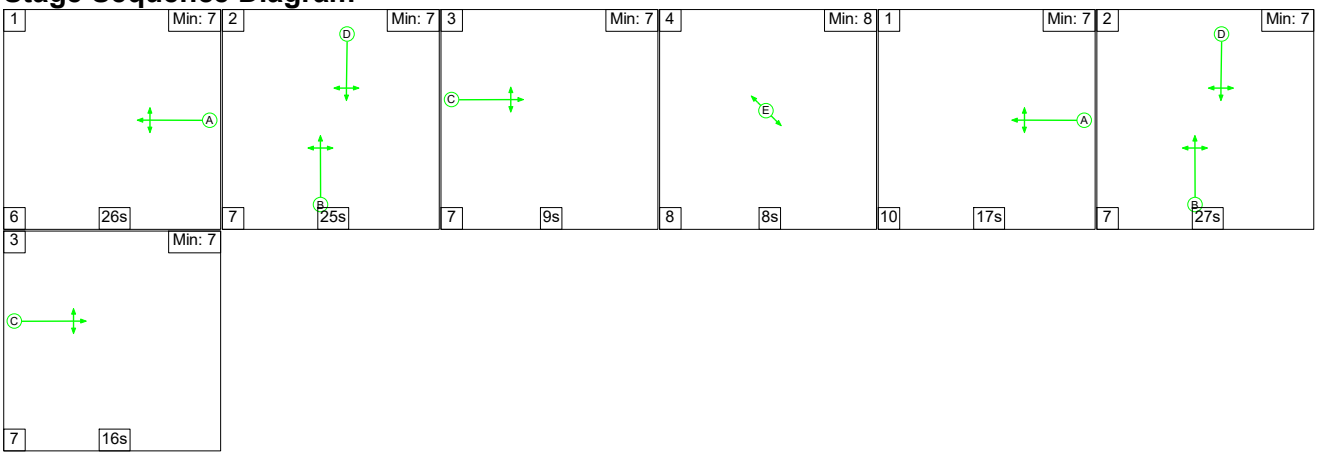
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**140**	**0**	**2**	**11.2**	**7.0**	**0.1**	**18.3**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**140**	**0**	**2**	**11.2**	**7.0**	**0.1**	**18.3**	**-**	**-**	**-**	**-**
1/1	329	329	-	-	-	3.1	2.2	-	5.3	58.0	8.6	2.2	10.8
2/1	336	336	108	0	1	2.7	2.1	0.1	4.9	52.2	8.2	2.1	10.3
3/1	272	272	33	0	0	2.0	0.5	0.0	2.5	33.1	5.8	0.5	6.4
4/1+4/2	362	362	-	-	-	3.5	2.2	-	5.7	56.4	6.3	2.2	8.5
5/1	386	386	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.1 Total Delay for Signalled Lanes (pcuHr): 18.34 Cycle Time (s): 180
PRC Over All Lanes (%): 9.1 Total Delay Over All Lanes(pcuHr): 18.34

Full Input Data And Results

Scenario 3: '2022 - AM Peak Without Development' (FG3: '2022 Weekday Without Development AM', Plan 4: 'Network Control Plan 4')

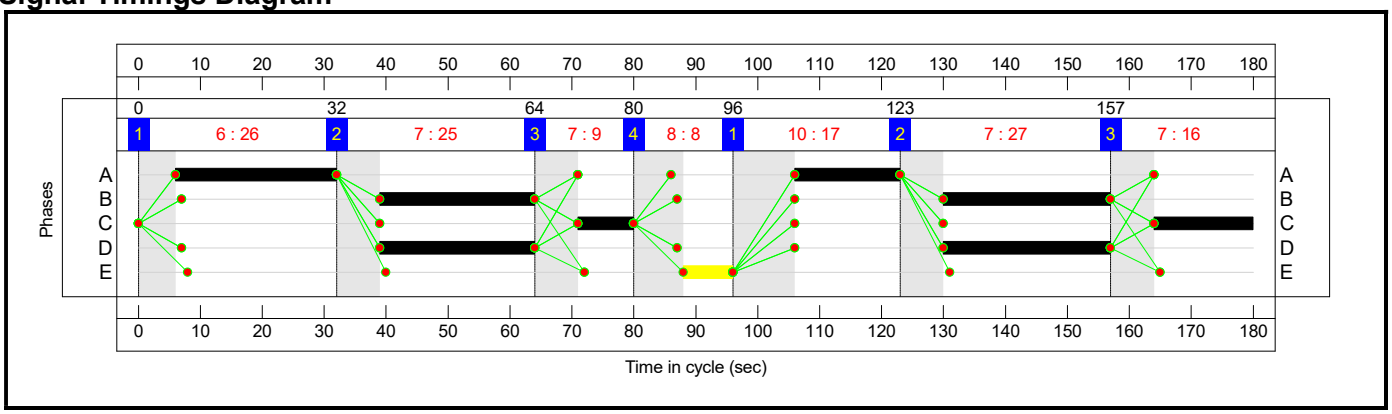
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	26	25	9	8	17	27	16
Change Point	0	32	64	80	96	123	157

Signal Timings Diagram

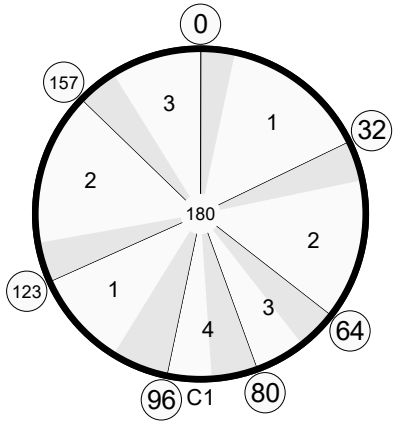


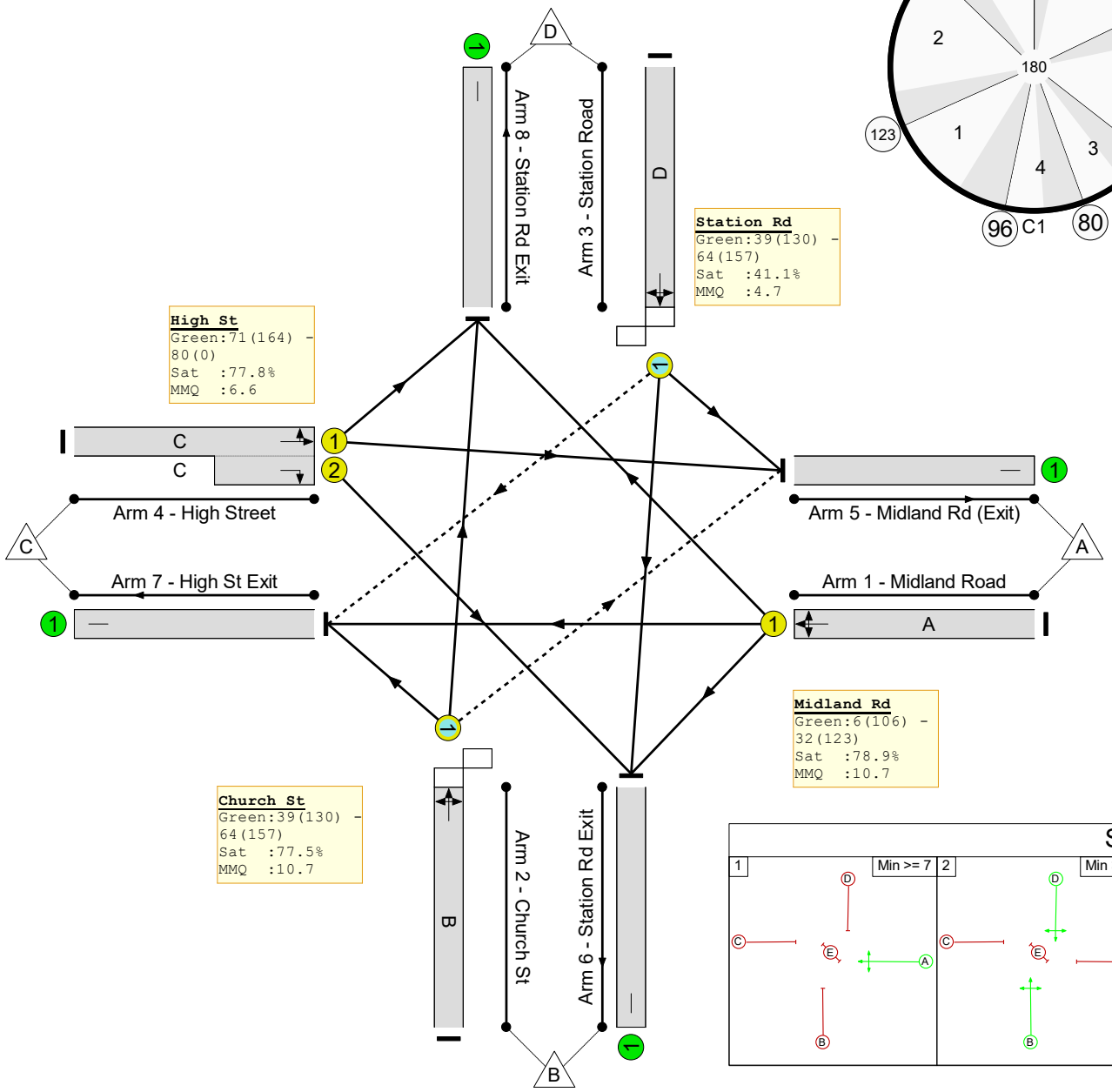
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 14.0 %
Total Traffic Delay: 16.7 pcuHr



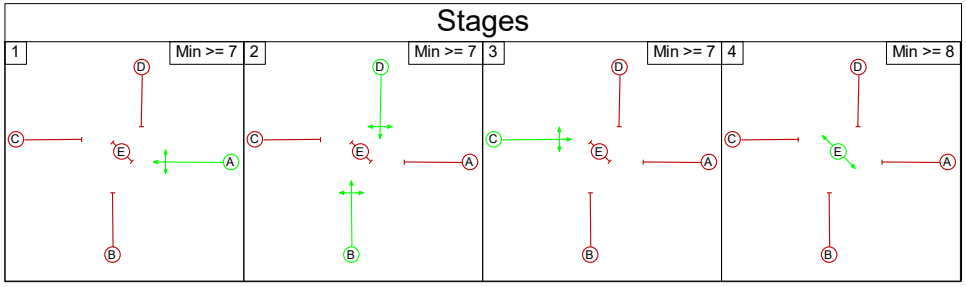


High St
Green:71(164) - 80(0)
Sat :77.8%
MMQ :6.6

Station Rd
Green:39(130) - 64(157)
Sat :41.1%
MMQ :4.7

Midland Rd
Green:6(106) - 32(123)
Sat :78.9%
MMQ :10.7

Church St
Green:39(130) - 64(157)
Sat :77.5%
MMQ :10.7



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**	-	-		-	-	-	-	-	-	**78.9%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.9%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	43	-	354	1794	448	78.9%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	52	-	385	1664	497	77.5%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	52	-	210	1709	511	41.1%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	25	-	350	1880:1926	450	77.8%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	267	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	287	Inf	Inf	0.0%

Full Input Data And Results

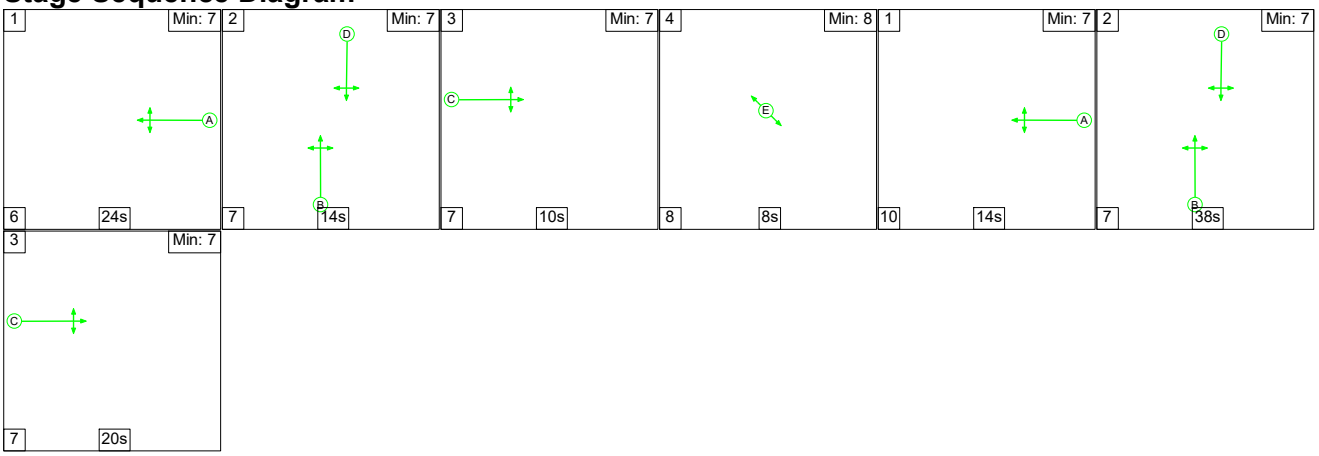
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**69**	**0**	**1**	**11.2**	**5.5**	**0.0**	**16.7**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**69**	**0**	**1**	**11.2**	**5.5**	**0.0**	**16.7**	**-**	**-**	**-**	**-**
1/1	354	354	-	-	-	3.1	1.8	-	4.9	50.1	8.8	1.8	10.7
2/1	385	385	59	0	1	3.1	1.7	0.0	4.8	44.7	9.0	1.7	10.7
3/1	210	210	10	0	0	1.5	0.3	0.0	1.8	31.5	4.3	0.3	4.7
4/1+4/2	350	350	-	-	-	3.5	1.7	-	5.2	53.6	4.9	1.7	6.6
5/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	307	307	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	287	287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 14.0 Total Delay for Signalled Lanes (pcuHr): 16.75 Cycle Time (s): 180
PRC Over All Lanes (%): 14.0 Total Delay Over All Lanes(pcuHr): 16.75

Full Input Data And Results

Scenario 4: '2022 PM Peak Without Development' (FG4: '2022 Weekday Without Development PM', Plan 4: 'Network Control Plan 4')

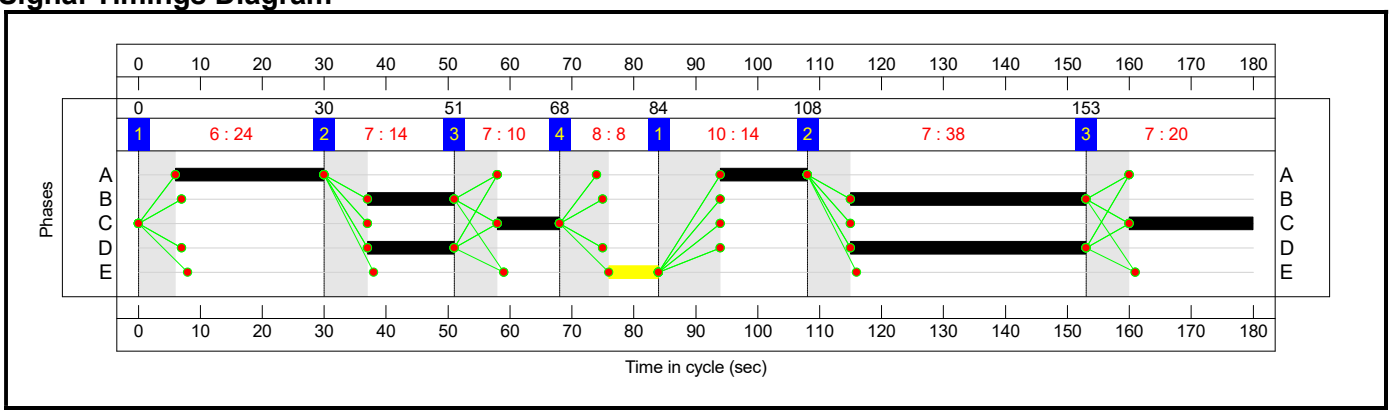
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	24	14	10	8	14	38	20
Change Point	0	30	51	68	84	108	153

Signal Timings Diagram

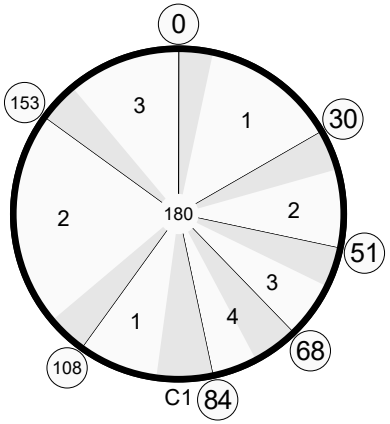


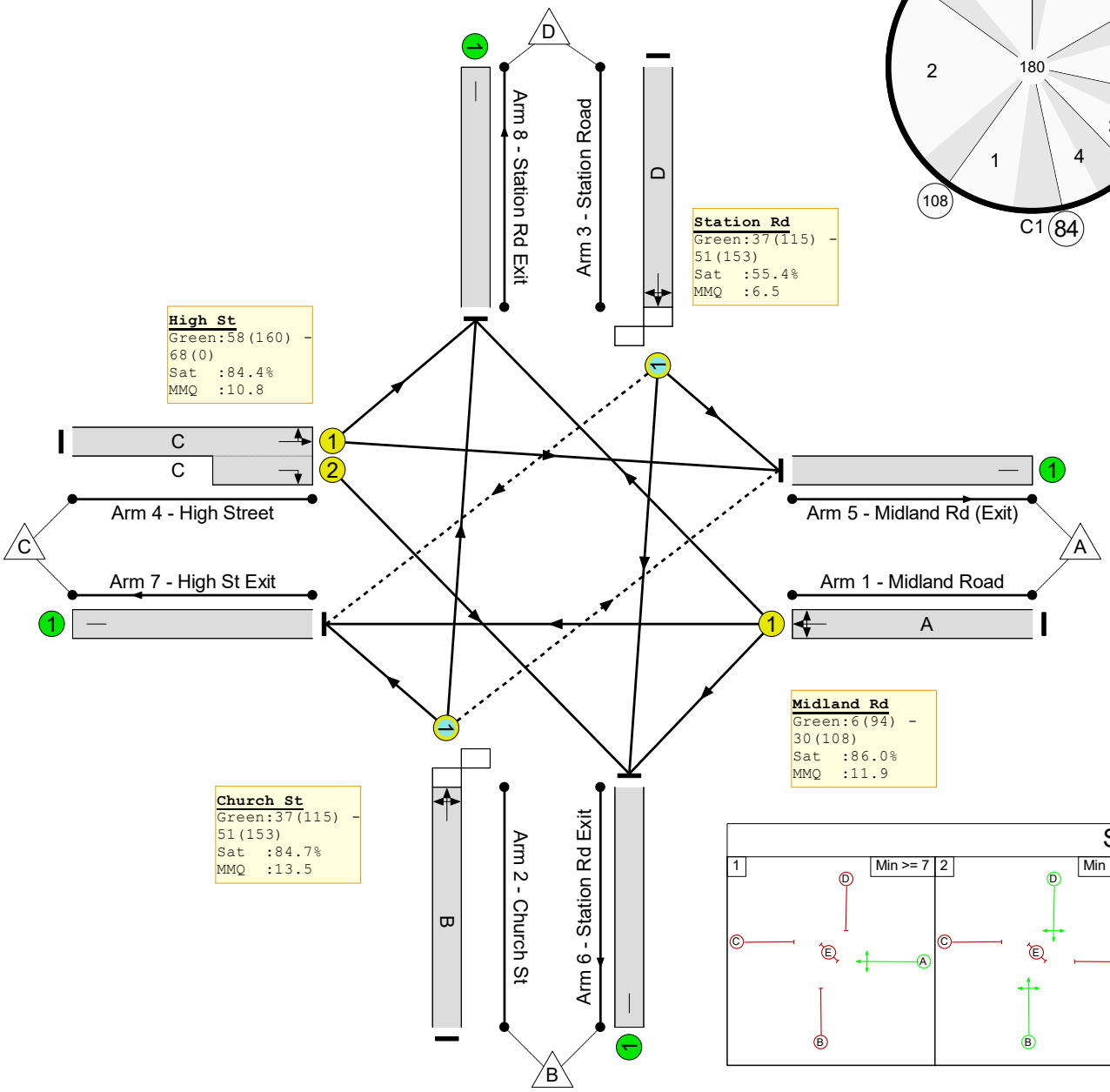
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 4.6 %
Total Traffic Delay: 21.6 pcuHr



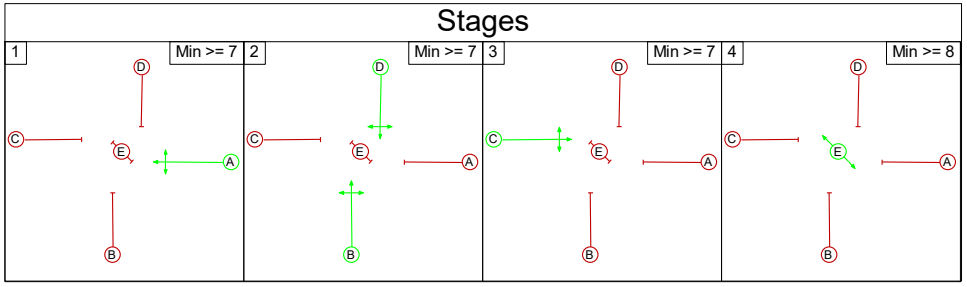


High St
Green:58(160) - 68(0)
Sat :84.4%
MMQ :10.8

Station Rd
Green:37(115) - 51(153)
Sat :55.4%
MMQ :6.5

Midland Rd
Green:6(94) - 30(108)
Sat :86.0%
MMQ :11.9

Church St
Green:37(115) - 51(153)
Sat :84.7%
MMQ :13.5



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**	-	-		-	-	-	-	-	-	**86.0%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.0%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	38	-	343	1794	399	86.0%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	52	-	351	1664	415	84.7%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	52	-	284	1709	513	55.4%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	30	-	379	1880:1926	449	84.4%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	404	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	210	Inf	Inf	0.0%

Full Input Data And Results

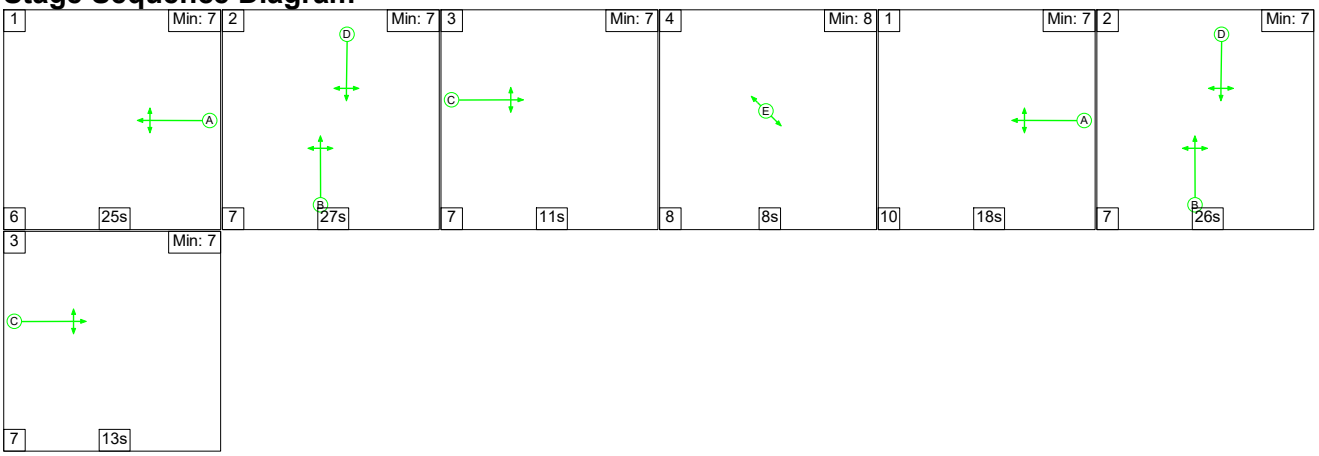
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**123**	**0**	**26**	**12.9**	**8.5**	**0.2**	**21.6**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**123**	**0**	**26**	**12.9**	**8.5**	**0.2**	**21.6**	**-**	**-**	**-**	**-**
1/1	343	343	-	-	-	3.2	2.8	-	6.0	63.4	9.1	2.8	11.9
2/1	351	351	88	0	26	3.8	2.6	0.1	6.5	66.7	11.0	2.6	13.5
3/1	284	284	35	0	0	2.1	0.6	0.0	2.7	34.3	5.9	0.6	6.5
4/1+4/2	379	379	-	-	-	3.8	2.5	-	6.3	60.2	8.3	2.5	10.8
5/1	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	210	210	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.6 Total Delay for Signalled Lanes (pcuHr): 21.59 Cycle Time (s): 180
PRC Over All Lanes (%): 4.6 Total Delay Over All Lanes(pcuHr): 21.59

Full Input Data And Results

Scenario 5: '2022 AM Peak With Development' (FG5: '2022 Weekday AM + Dev', Plan 4: 'Network Control Plan 4')

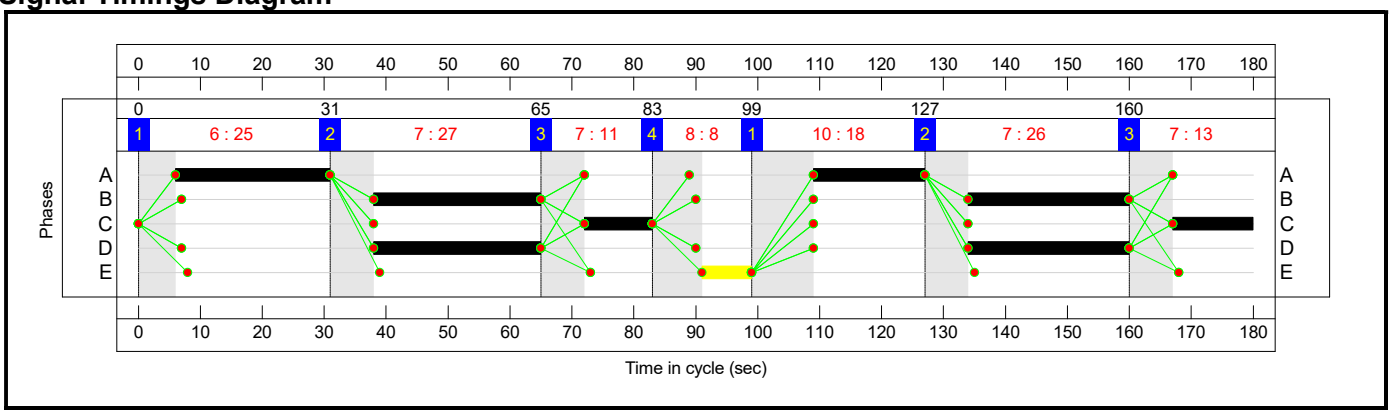
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	25	27	11	8	18	26	13
Change Point	0	31	65	83	99	127	160

Signal Timings Diagram

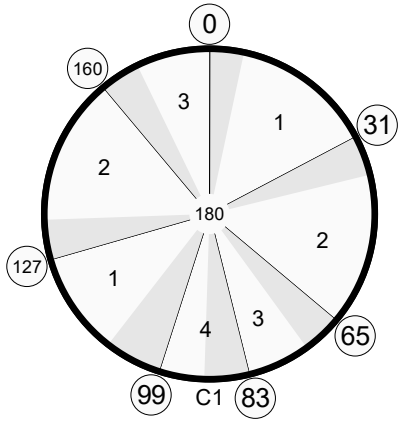


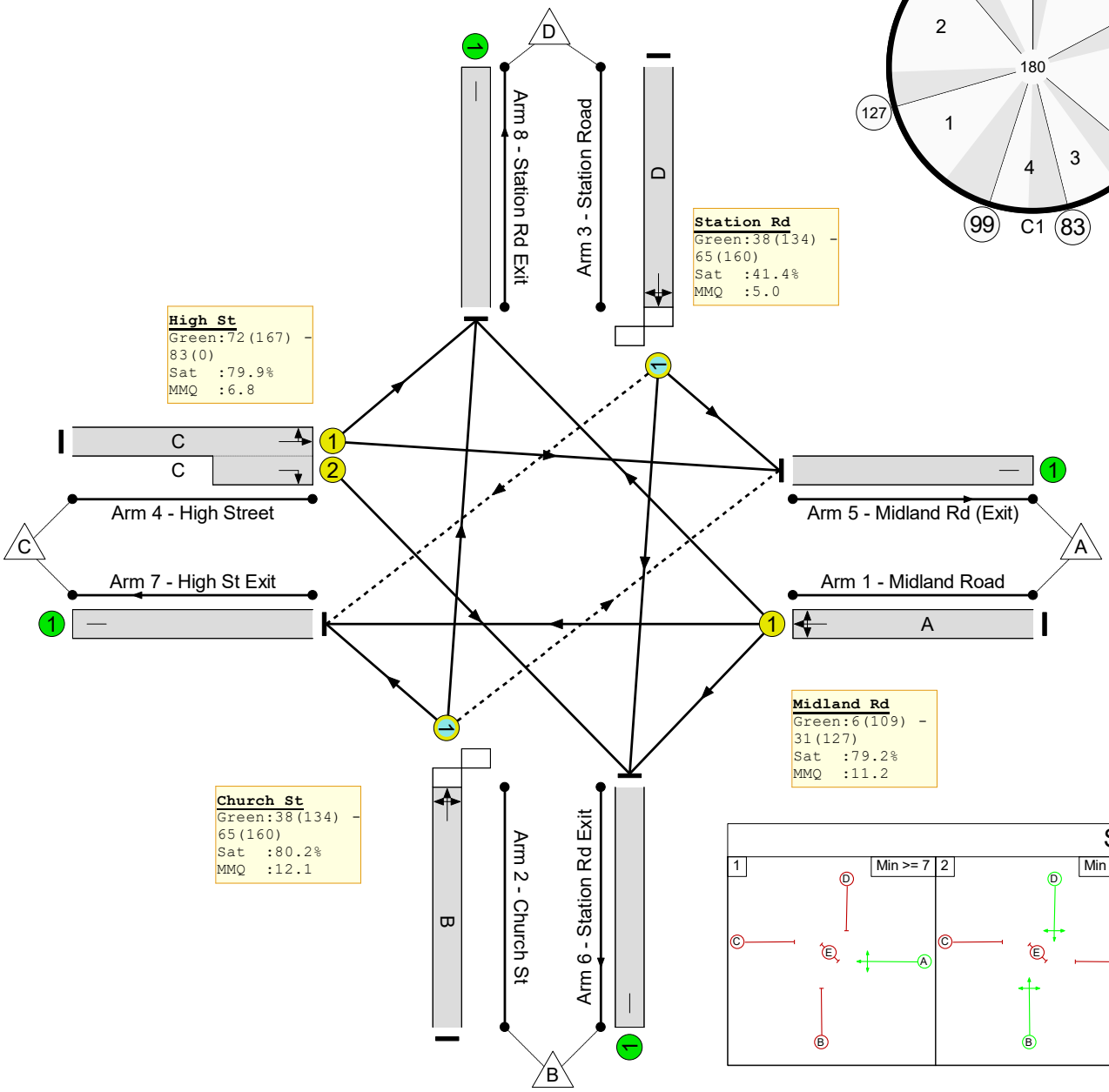
Full Input Data And Results

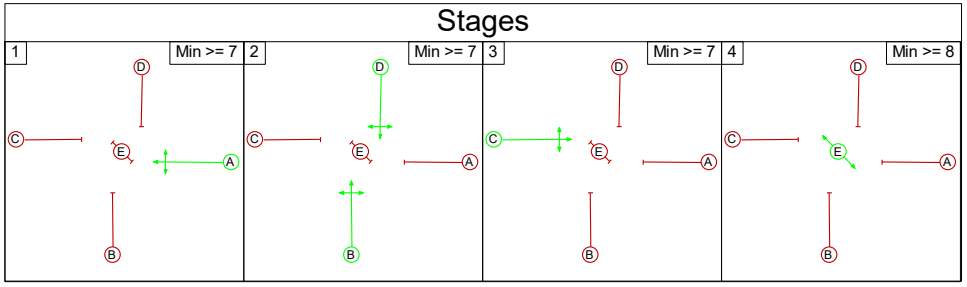
Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 12.3 %
Total Traffic Delay: 17.6 pcuHr







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**	-	-		-	-	-	-	-	-	**80.2%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.2%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	43	-	355	1794	448	79.2%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	53	-	406	1664	506	80.2%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	53	-	216	1709	522	41.4%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	24	-	350	1880:1926	438	79.9%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%

Full Input Data And Results

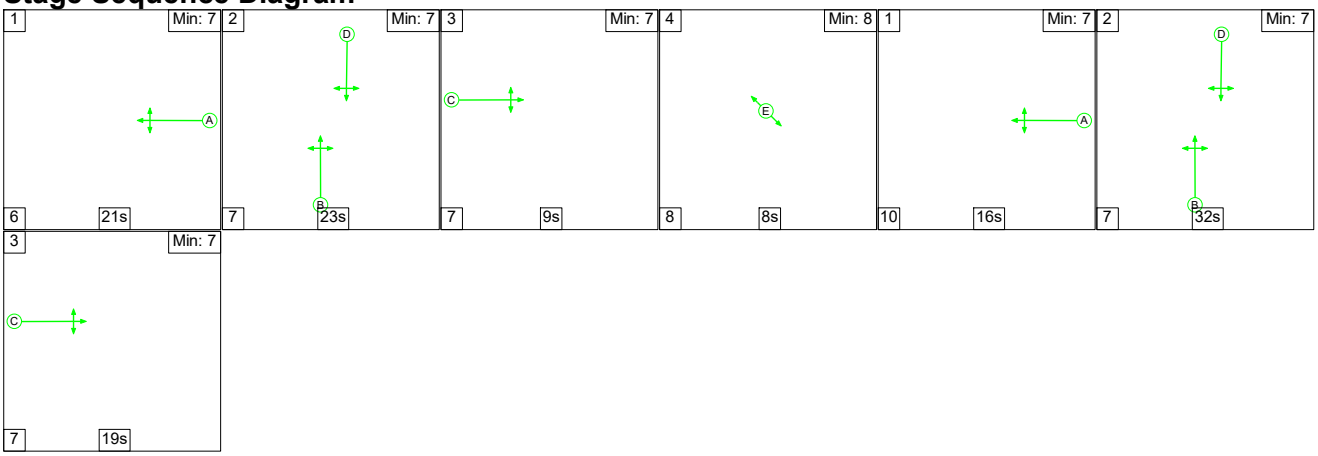
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**70**	**0**	**1**	**11.5**	**6.0**	**0.1**	**17.6**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**70**	**0**	**1**	**11.5**	**6.0**	**0.1**	**17.6**	**-**	**-**	**-**	**-**
1/1	355	355	-	-	-	3.2	1.8	-	5.0	50.7	9.4	1.8	11.2
2/1	406	406	60	0	1	3.3	1.9	0.0	5.2	46.5	10.2	1.9	12.1
3/1	216	216	10	0	0	1.5	0.4	0.0	1.9	31.2	4.6	0.4	5.0
4/1+4/2	350	350	-	-	-	3.6	1.9	-	5.5	56.2	4.9	1.9	6.8
5/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	305	305	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 12.3 Total Delay for Signalled Lanes (pcuHr): 17.58 Cycle Time (s): 180
PRC Over All Lanes (%): 12.3 Total Delay Over All Lanes(pcuHr): 17.58

Full Input Data And Results

Scenario 6: '2022 PM Peak With Development' (FG6: '2022 Weekday PM + Dev', Plan 4: 'Network Control Plan 4')

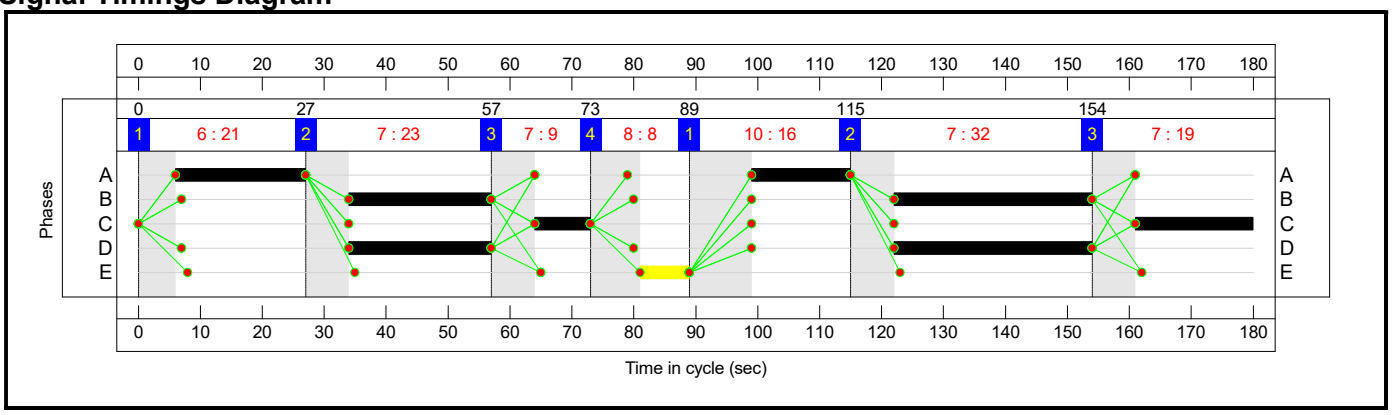
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	21	23	9	8	16	32	19
Change Point	0	27	57	73	89	115	154

Signal Timings Diagram

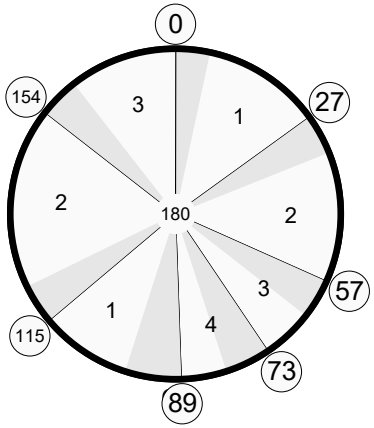


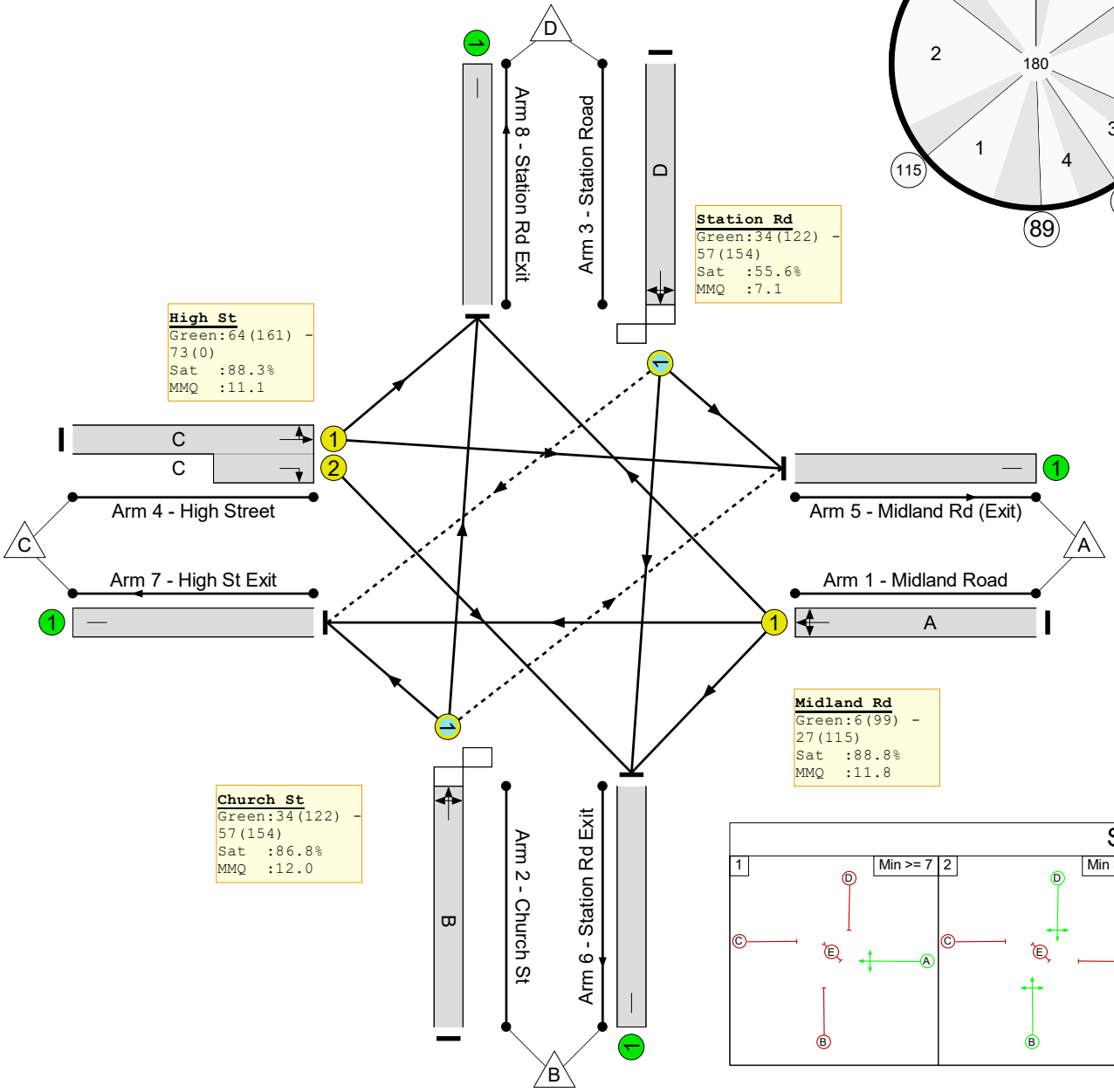
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 1.4 %
Total Traffic Delay: 22.6 pcuHr



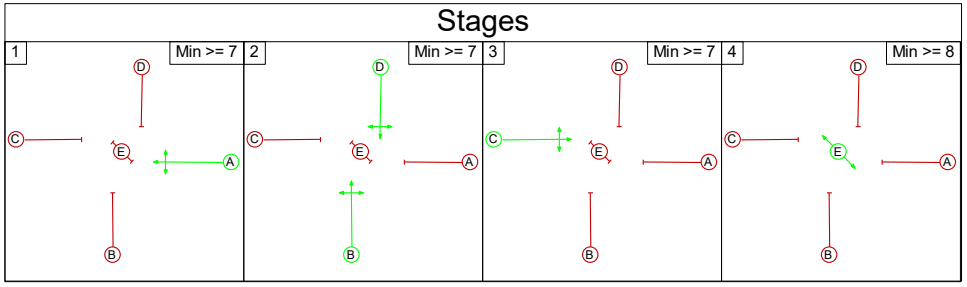


Station Rd
Green:34(122) - 57(154)
Sat :55.6%
MMQ :7.1

High St
Green:64(161) - 73(0)
Sat :88.3%
MMQ :11.1

Midland Rd
Green:6(99) - 27(115)
Sat :88.8%
MMQ :11.8

Church St
Green:34(122) - 57(154)
Sat :86.8%
MMQ :12.0



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**	-	-		-	-	-	-	-	-	**88.8%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.8%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	37	-	345	1794	389	88.8%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	55	-	362	1664	417	86.8%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	55	-	301	1709	541	55.6%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	28	-	381	1880:1926	431	88.3%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	219	Inf	Inf	0.0%

Full Input Data And Results

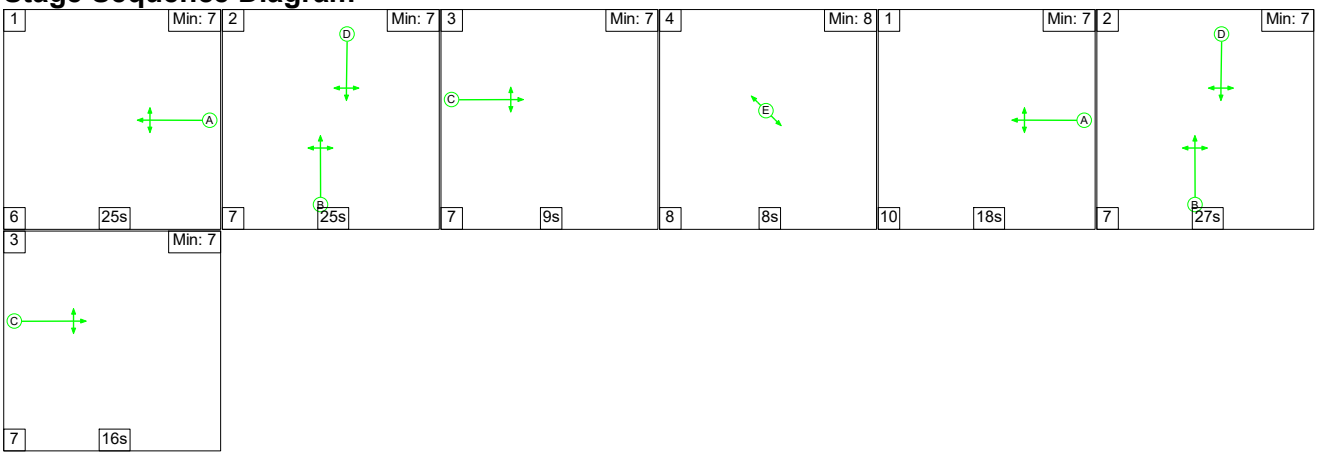
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**147**	**0**	**3**	**12.1**	**10.3**	**0.2**	**22.6**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**147**	**0**	**3**	**12.1**	**10.3**	**0.2**	**22.6**	**-**	**-**	**-**	**-**
1/1	345	345	-	-	-	3.3	3.4	-	6.7	69.8	8.3	3.4	11.8
2/1	362	362	113	0	2	2.9	3.0	0.2	6.0	59.5	9.0	3.0	12.0
3/1	301	301	35	0	0	2.1	0.6	0.0	2.8	33.1	6.4	0.6	7.1
4/1+4/2	381	381	-	-	-	3.8	3.3	-	7.2	67.8	7.8	3.3	11.1
5/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	219	219	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 1.4 Total Delay for Signalled Lanes (pcuHr): 22.62 Cycle Time (s): 180
PRC Over All Lanes (%): 1.4 Total Delay Over All Lanes(pcuHr): 22.62

Full Input Data And Results

Scenario 7: '2027 AM Peak Without Development' (FG7: '2027 Weekday Without Development AM', Plan 4: 'Network Control Plan 4')

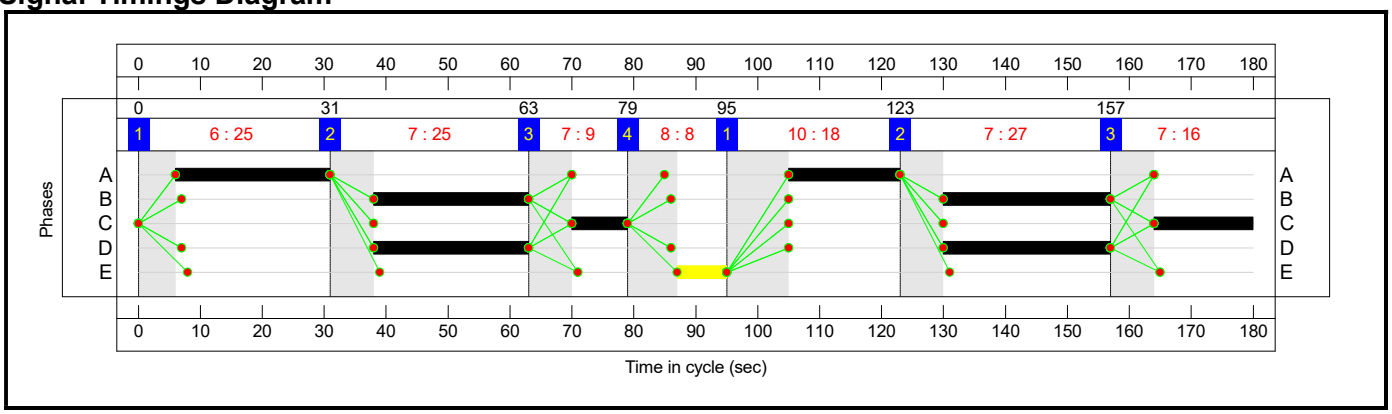
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	25	25	9	8	18	27	16
Change Point	0	31	63	79	95	123	157

Signal Timings Diagram

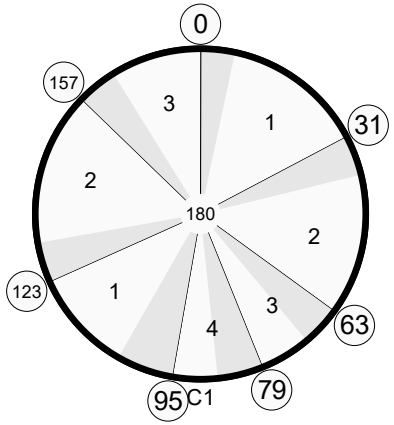


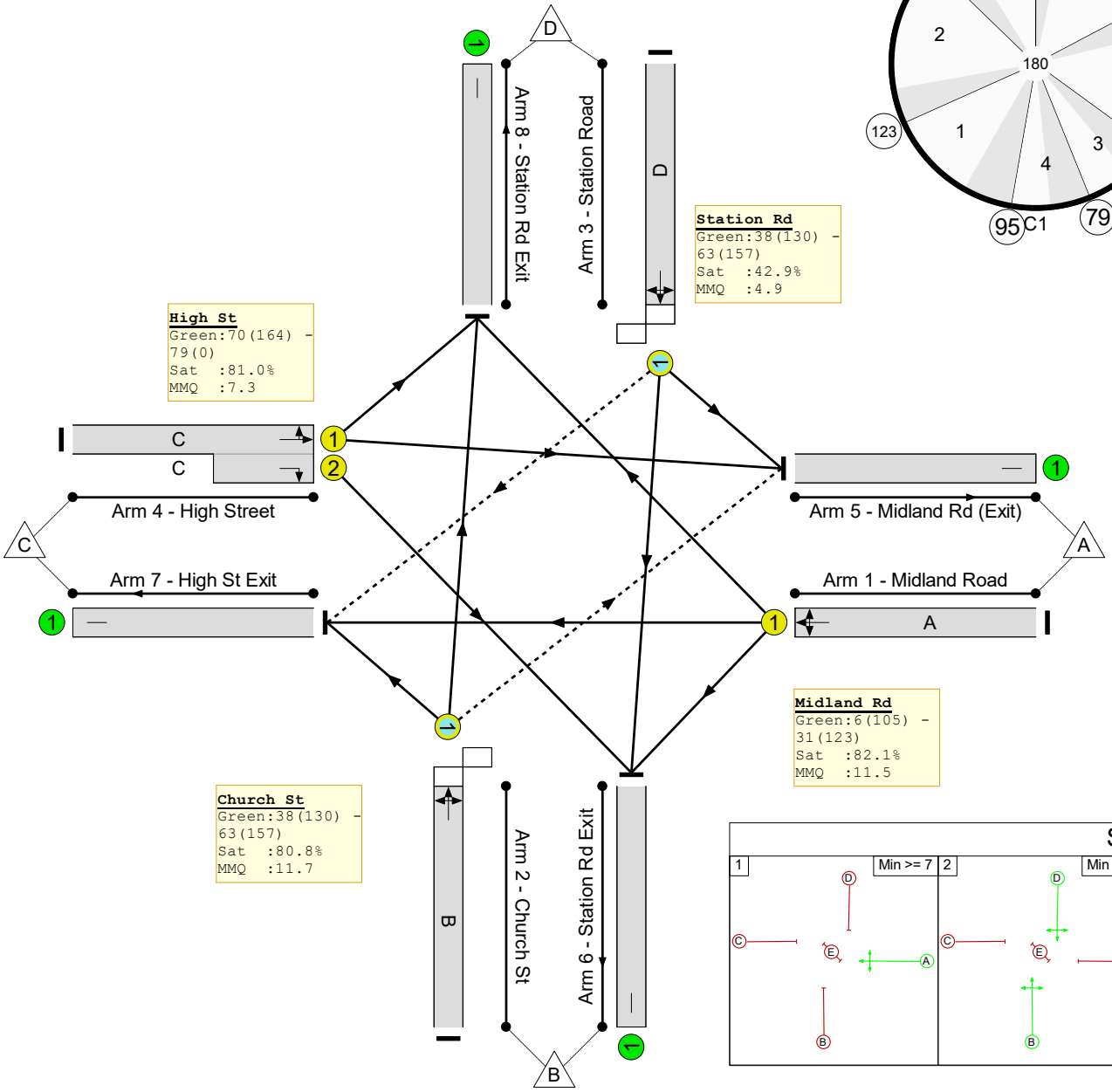
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 9.7 %
Total Traffic Delay: 18.4 pcuHr



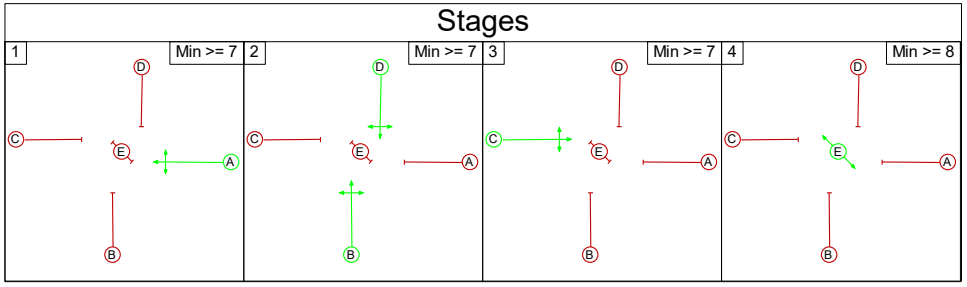


Station Rd
Green:38(130) - 63(157)
Sat :42.9%
MMQ :4.9

High St
Green:70(164) - 79(0)
Sat :81.0%
MMQ :7.3

Midland Rd
Green:6(105) - 31(123)
Sat :82.1%
MMQ :11.5

Church St
Green:38(130) - 63(157)
Sat :80.8%
MMQ :11.7



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**	-	-		-	-	-	-	-	-	**82.1%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	43	-	368	1794	448	82.1%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	52	-	401	1664	497	80.8%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	52	-	219	1709	510	42.9%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	25	-	364	1880:1926	449	81.0%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%

Full Input Data And Results

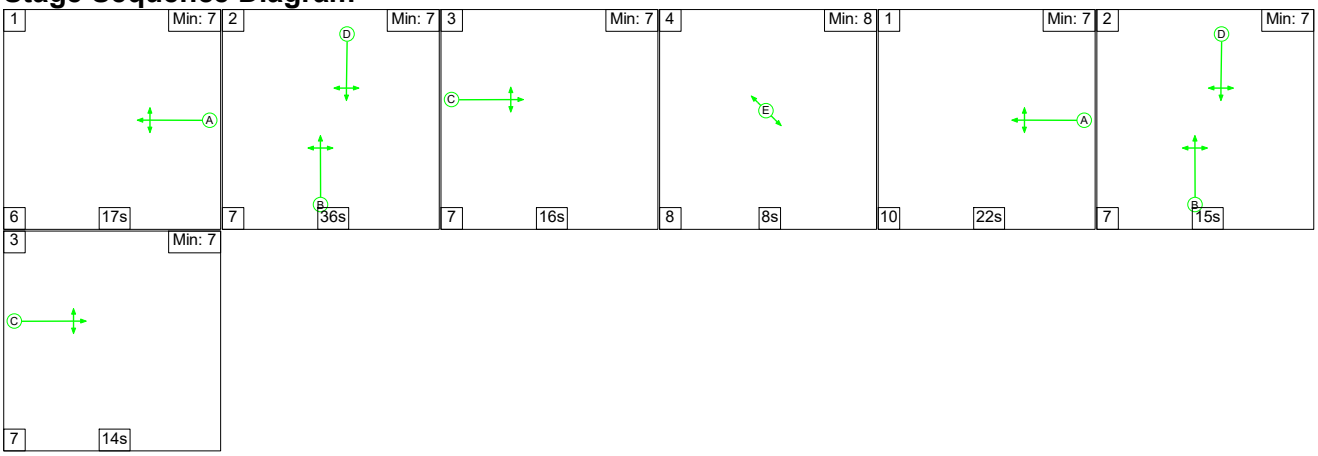
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**72**	**0**	**1**	**11.7**	**6.6**	**0.1**	**18.4**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**72**	**0**	**1**	**11.7**	**6.6**	**0.1**	**18.4**	**-**	**-**	**-**	**-**
1/1	368	368	-	-	-	3.3	2.2	-	5.4	53.3	9.3	2.2	11.5
2/1	401	401	61	0	1	3.2	2.0	0.0	5.3	47.5	9.7	2.0	11.7
3/1	219	219	11	0	0	1.5	0.4	0.0	1.9	31.9	4.6	0.4	4.9
4/1+4/2	364	364	-	-	-	3.7	2.0	-	5.7	56.5	5.3	2.0	7.3
5/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.7 Total Delay for Signalled Lanes (pcuHr): 18.39 Cycle Time (s): 180
PRC Over All Lanes (%): 9.7 Total Delay Over All Lanes(pcuHr): 18.39

Full Input Data And Results

Scenario 8: '2027 PM Peak Without Developmet' (FG8: '2027 Weekday Without Development PM', Plan 4: 'Network Control Plan 4')

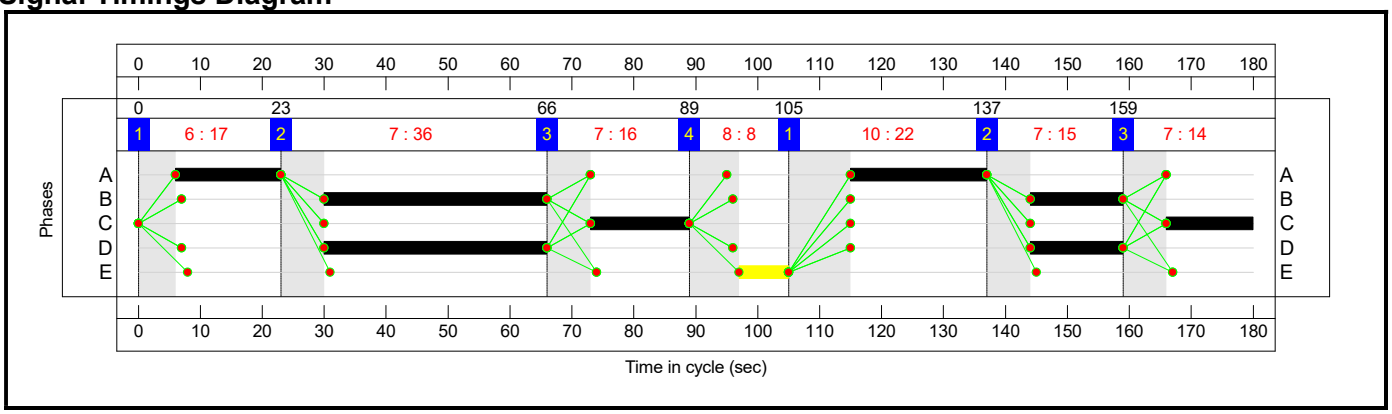
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	17	36	16	8	22	15	14
Change Point	0	23	66	89	105	137	159

Signal Timings Diagram

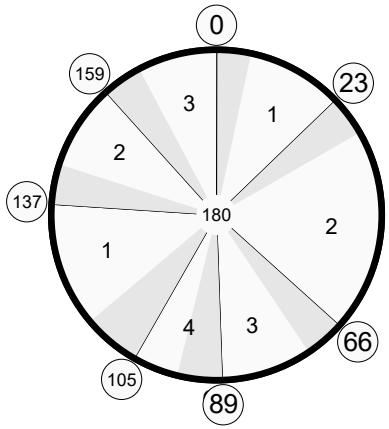


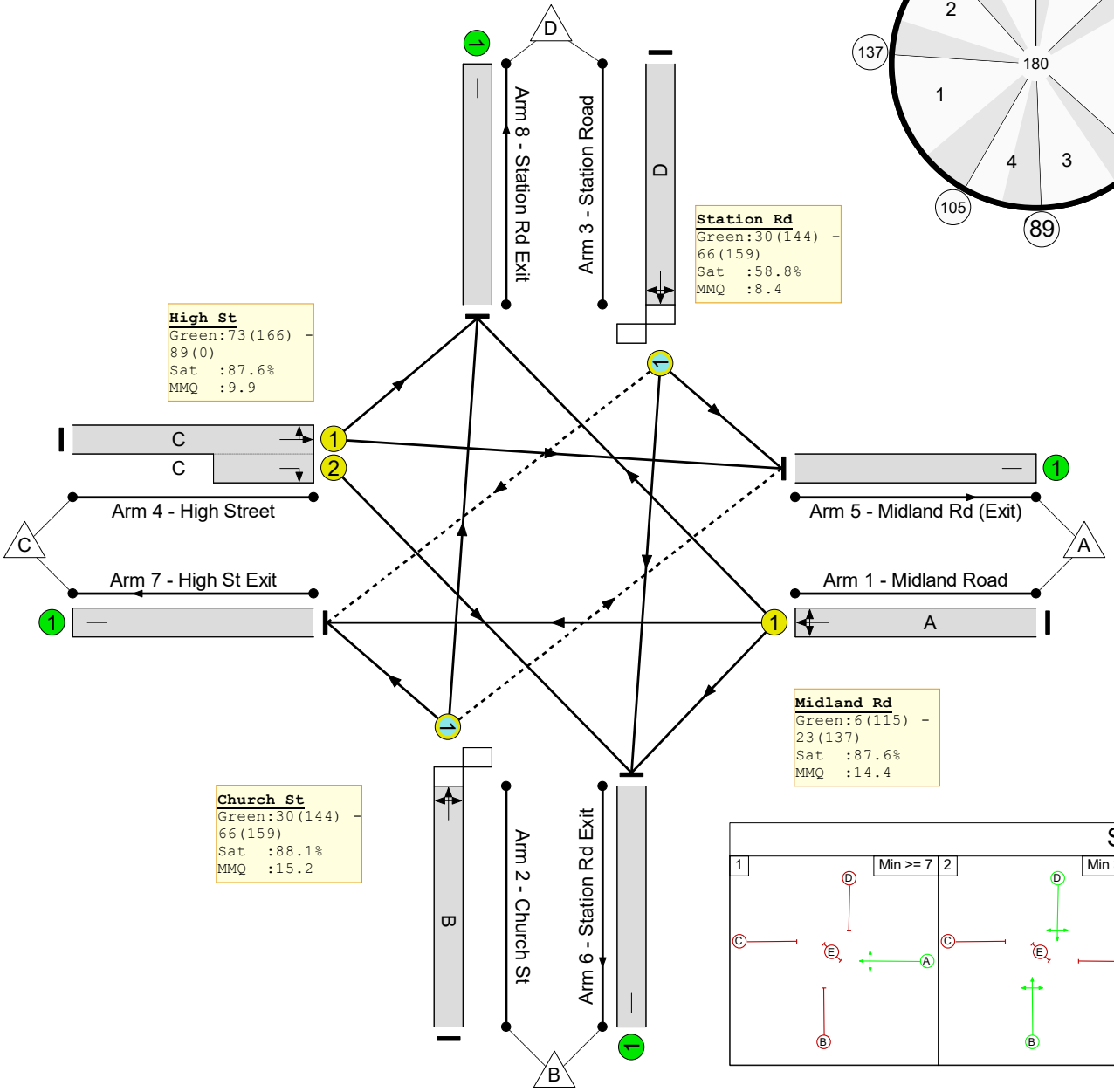
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 2.2 %
Total Traffic Delay: 24.9 pcuHr



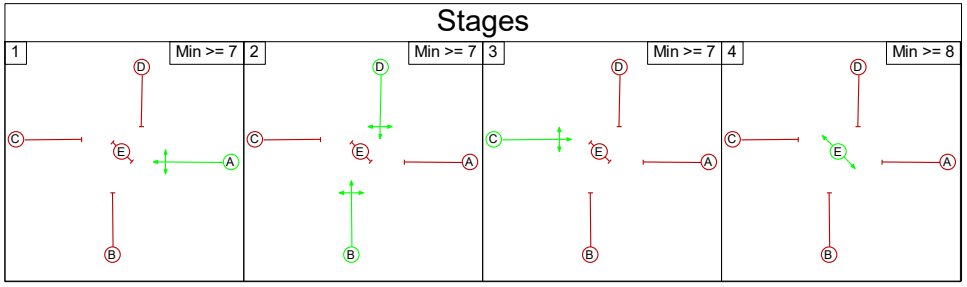


Station Rd
Green:30(144) - 66(159)
Sat :58.8%
MMQ :8.4

High St
Green:73(166) - 89(0)
Sat :87.6%
MMQ :9.9

Midland Rd
Green:6(115) - 23(137)
Sat :87.6%
MMQ :14.4

Church St
Green:30(144) - 66(159)
Sat :88.1%
MMQ :15.2



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**	-	-		-	-	-	-	-	-	**88.1%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.1%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	39	-	358	1794	409	87.6%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	51	-	366	1664	416	88.1%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	51	-	296	1709	503	58.8%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	30	-	394	1880:1926	450	87.6%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	218	Inf	Inf	0.0%

Full Input Data And Results

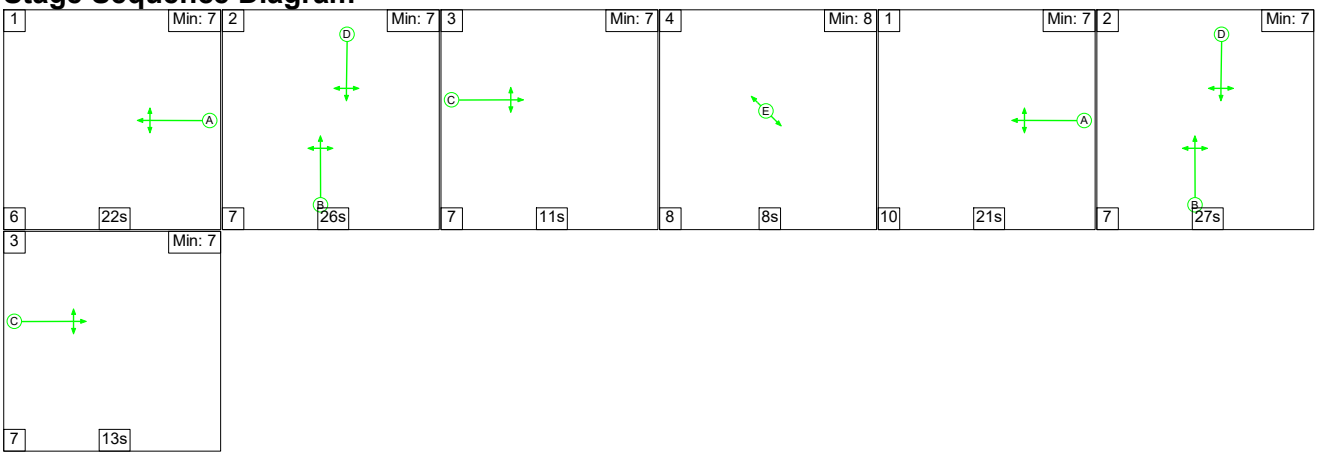
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**125**	**0**	**30**	**14.5**	**10.3**	**0.2**	**24.9**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**125**	**0**	**30**	**14.5**	**10.3**	**0.2**	**24.9**	**-**	**-**	**-**	**-**
1/1	358	358	-	-	-	3.7	3.1	-	6.8	68.4	11.2	3.1	14.4
2/1	366	366	92	0	27	4.7	3.3	0.1	8.1	79.5	12.0	3.3	15.2
3/1	296	296	34	0	2	2.3	0.7	0.0	3.1	37.2	7.6	0.7	8.4
4/1+4/2	394	394	-	-	-	3.8	3.2	-	6.9	63.4	6.8	3.2	9.9
5/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 2.2 Total Delay for Signalled Lanes (pcuHr): 24.89 Cycle Time (s): 180
PRC Over All Lanes (%): 2.2 Total Delay Over All Lanes(pcuHr): 24.89

Full Input Data And Results

Scenario 9: '2027 AM Peak With Development' (FG9: '2027 Weekday AM + Dev', Plan 4: 'Network Control Plan 4')

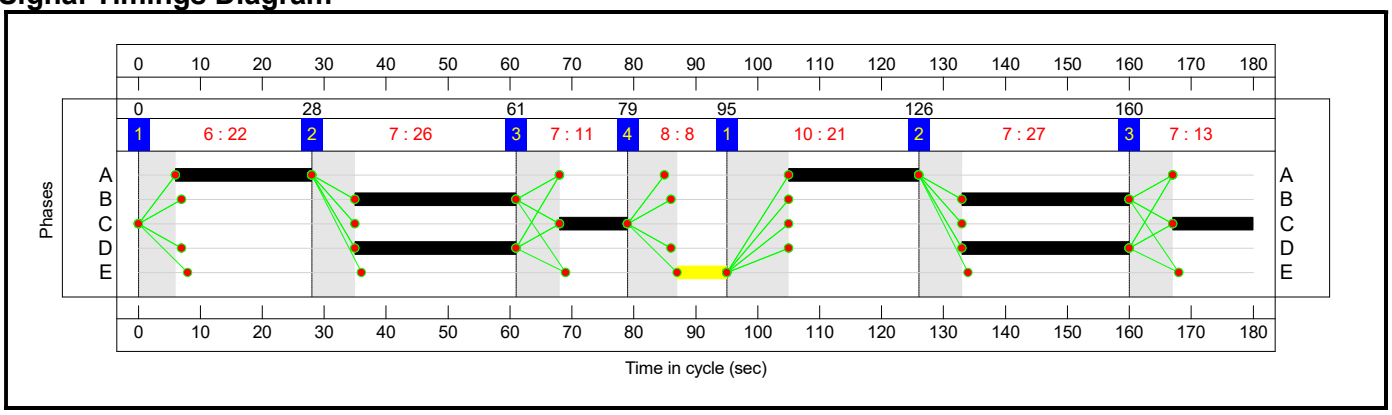
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	22	26	11	8	21	27	13
Change Point	0	28	61	79	95	126	160

Signal Timings Diagram

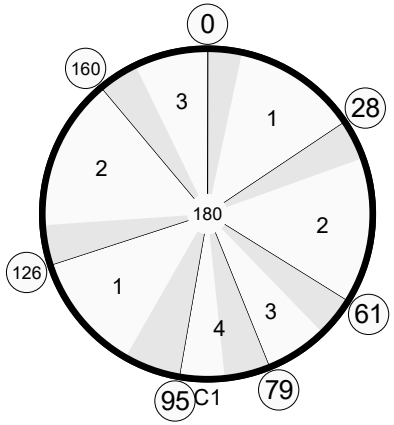


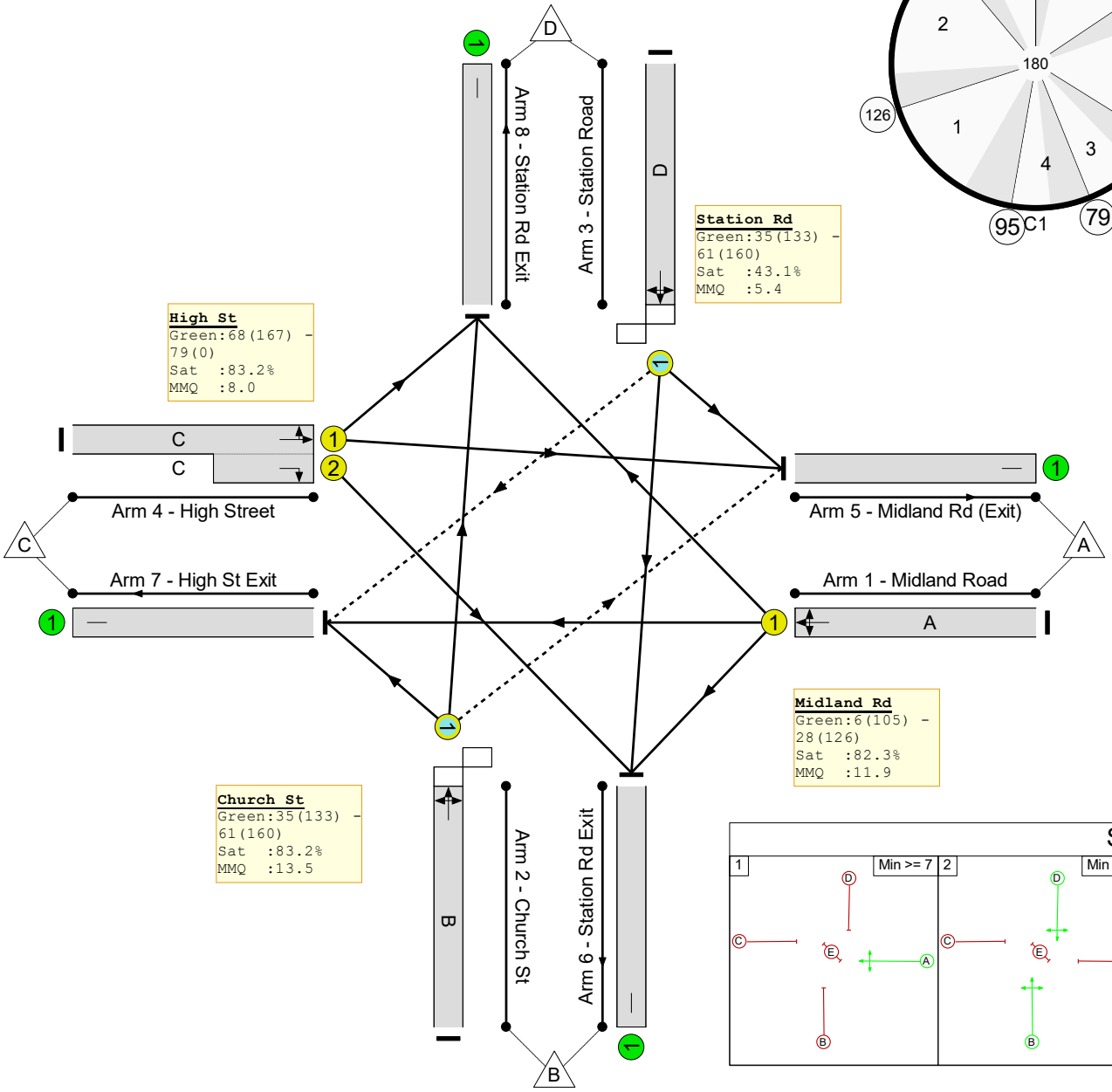
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: 8.1 %
Total Traffic Delay: 19.5 pcuHr



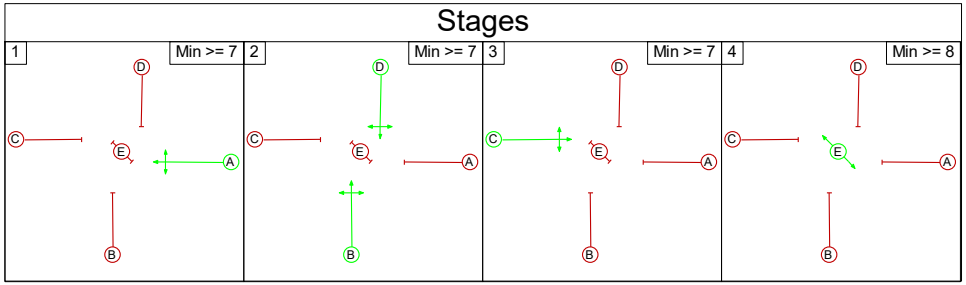


Station Rd
Green:35(133) - 61(160)
Sat :43.1%
MMQ :5.4

High St
Green:68(167) - 79(0)
Sat :83.2%
MMQ :8.0

Midland Rd
Green:6(105) - 28(126)
Sat :82.3%
MMQ :11.9

Church St
Green:35(133) - 61(160)
Sat :83.2%
MMQ :13.5



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.2%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	43	-	369	1794	448	82.3%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	53	-	422	1664	507	83.2%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	53	-	225	1709	522	43.1%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	24	-	365	1880:1926	438	83.2%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%

Full Input Data And Results

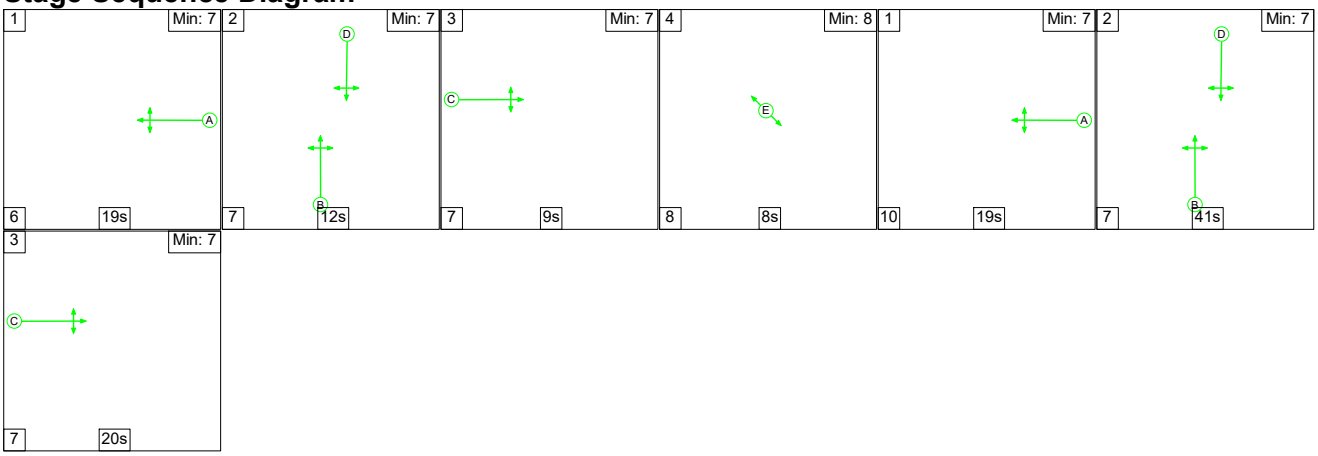
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**74**	**0**	**1**	**12.2**	**7.3**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**74**	**0**	**1**	**12.2**	**7.3**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
1/1	369	369	-	-	-	3.3	2.2	-	5.5	53.8	9.7	2.2	11.9
2/1	422	422	63	0	1	3.5	2.4	0.0	5.9	50.1	11.1	2.4	13.5
3/1	225	225	11	0	0	1.6	0.4	0.0	2.0	31.9	5.1	0.4	5.4
4/1+4/2	365	365	-	-	-	3.8	2.3	-	6.1	60.2	5.7	2.3	8.0
5/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 8.1 Total Delay for Signalled Lanes (pcuHr): 19.48 Cycle Time (s): 180
PRC Over All Lanes (%): 8.1 Total Delay Over All Lanes(pcuHr): 19.48

Full Input Data And Results

Scenario 10: '2027 PM Peak With Development' (FG10: '2027 Weekday PM + Dev', Plan 4: 'Network Control Plan 4')

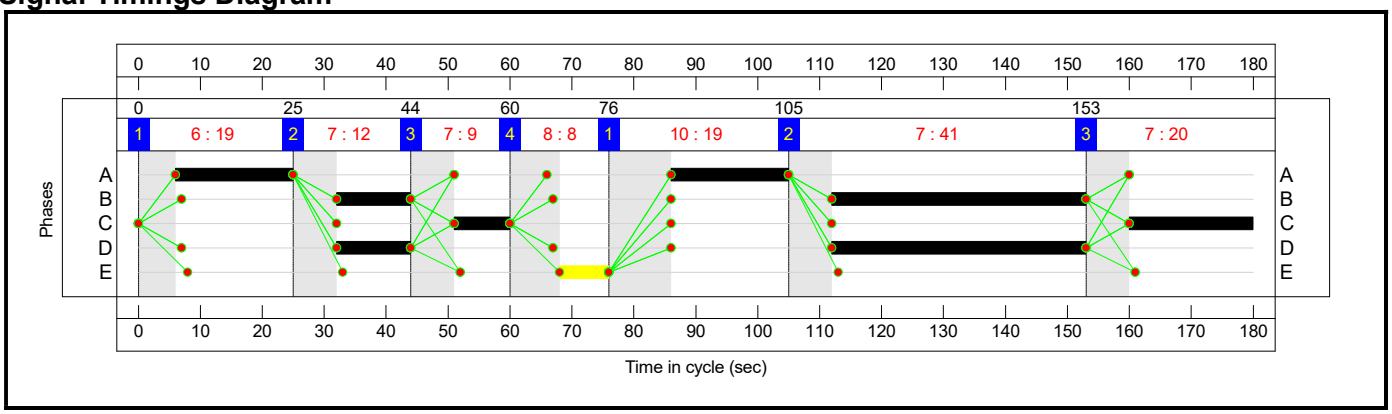
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	2	3
Duration	19	12	9	8	19	41	20
Change Point	0	25	44	60	76	105	153

Signal Timings Diagram

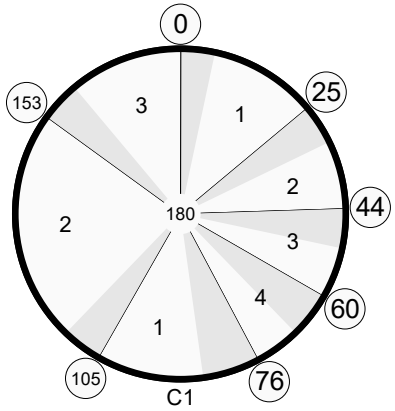


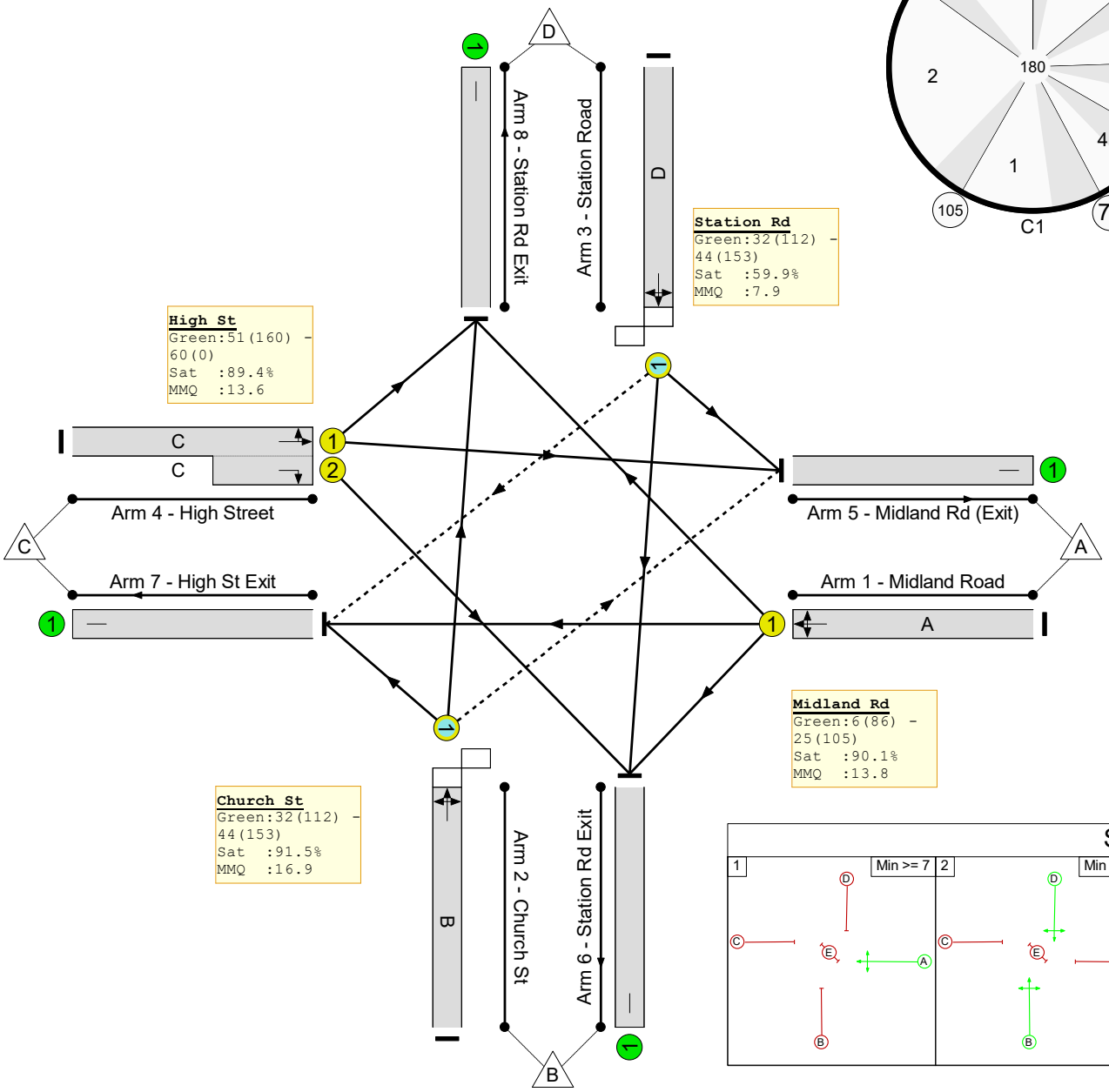
Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Station Rd / Midland Rd / Church St, Royston, Barnsley
PRC: -1.7 %
Total Traffic Delay: 26.9 pcuHr



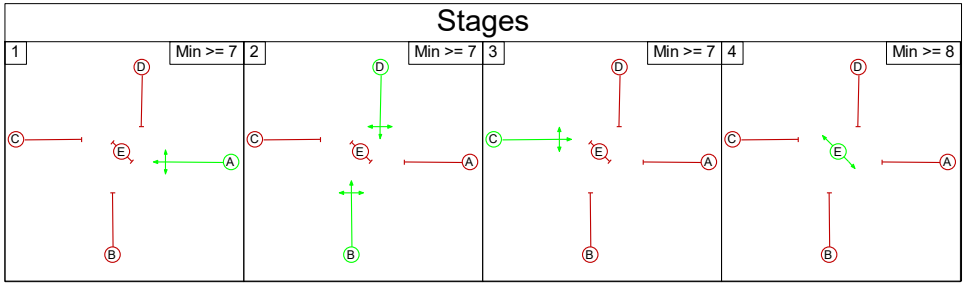


Station Rd
Green:32(112) - 44(153)
Sat :59.9%
MMQ :7.9

High St
Green:51(160) - 60(0)
Sat :89.4%
MMQ :13.6

Midland Rd
Green:6(86) - 25(105)
Sat :90.1%
MMQ :13.8

Church St
Green:32(112) - 44(153)
Sat :91.5%
MMQ :16.9



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**	-	-		-	-	-	-	-	-	**91.5%**
Station Rd / Midland Rd / Church St, Royston, Barnsley	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.5%**
1/1	Midland Road Left Ahead Right	U	N/A	N/A	A		2	38	-	359	1794	399	90.1%
2/1	Church St Right Left Ahead	O	N/A	N/A	B		2	53	-	376	1664	411	91.5%
3/1	Station Road Left Ahead Right	O	N/A	N/A	D		2	53	-	313	1709	522	59.9%
4/1+4/2	High Street Ahead Right Left	U	N/A	N/A	C		2	29	-	395	1880:1926	442	89.4%
5/1	Midland Rd (Exit)	U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
6/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	424	Inf	Inf	0.0%
7/1	High St Exit	U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
8/1	Station Rd Exit	U	N/A	N/A	-		-	-	-	227	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**126**	**0**	**29**	**14.2**	**12.5**	**0.2**	**26.9**	**-**	**-**	**-**	**-**
Station Rd / Midland Rd / Church St, Royston, Barnsley	**-**	**-**	**126**	**0**	**29**	**14.2**	**12.5**	**0.2**	**26.9**	**-**	**-**	**-**	**-**
1/1	359	359	-	-	-	3.5	3.8	-	7.3	72.8	10.0	3.8	13.8
2/1	376	376	93	0	26	4.1	4.3	0.1	8.6	82.5	12.5	4.3	16.9
3/1	313	313	34	0	2	2.3	0.7	0.0	3.1	35.3	7.1	0.7	7.9
4/1+4/2	395	395	-	-	-	4.3	3.7	-	8.0	72.6	10.0	3.7	13.6
5/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	424	424	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	227	227	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.7 Total Delay for Signalled Lanes (pcuHr): 26.91 Cycle Time (s): 180
PRC Over All Lanes (%): -1.7 Total Delay Over All Lanes(pcuHr): 26.91

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk

Filename: J5 Fish Dam Ln Rbt.j9
Path: \\rsbgukfs01\WAKEngineer\data\102107 - Shaw Lane, Barnsley\Calcs\30-11-2021
Report generation date: 15/12/2021 10:02:48

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2018 Weekday Observed										
1 - Fish Dam Lane (N)	0.8	6.25	0.43	A	31 % [3 - Fish Dam Lane (S)]	0.7	6.39	0.40	A	37 % [4 - Industry Road]
2 - West Green Way	0.8	6.28	0.46	A		0.4	5.15	0.31	A	
3 - Fish Dam Lane (S)	1.7	9.14	0.63	A		0.8	5.40	0.43	A	
4 - Industry Road	1.0	7.28	0.49	A		1.6	8.91	0.61	A	
2022 Weekday Factored										
1 - Fish Dam Lane (N)	0.8	6.61	0.46	A	25 % [3 - Fish Dam Lane (S)]	0.7	6.76	0.42	A	31 % [4 - Industry Road]
2 - West Green Way	0.9	6.72	0.49	A		0.5	5.37	0.33	A	
3 - Fish Dam Lane (S)	2.0	10.32	0.67	B		0.8	5.66	0.46	A	
4 - Industry Road	1.1	7.83	0.52	A		1.8	9.79	0.64	A	
2027 Weekday Factored										
1 - Fish Dam Lane (N)	0.9	6.98	0.48	A	20 % [3 - Fish Dam Lane (S)]	0.8	7.15	0.45	A	26 % [4 - Industry Road]
2 - West Green Way	1.0	7.18	0.51	A		0.5	5.62	0.35	A	
3 - Fish Dam Lane (S)	2.4	11.74	0.71	B		0.9	5.94	0.48	A	
4 - Industry Road	1.2	8.42	0.55	A		2.1	10.91	0.68	B	
2022 Weekday Peak + Development										
1 - Fish Dam Lane (N)	1.0	7.25	0.51	A	23 % [3 - Fish Dam Lane (S)]	0.8	7.08	0.45	A	27 % [4 - Industry Road]
2 - West Green Way	1.0	7.07	0.50	A		0.5	5.54	0.34	A	
3 - Fish Dam Lane (S)	2.1	10.78	0.69	B		1.0	6.08	0.49	A	
4 - Industry Road	1.1	7.99	0.53	A		1.9	10.54	0.66	B	
2027 Weekday Peak + Development										
1 - Fish Dam Lane (N)	1.1	7.70	0.53	A	18 % [3 - Fish Dam Lane (S)]	0.9	7.51	0.47	A	22 % [4 - Industry Road]
2 - West Green Way	1.1	7.58	0.53	A		0.6	5.80	0.36	A	
3 - Fish Dam Lane (S)	2.5	12.34	0.72	B		1.0	6.41	0.51	A	
4 - Industry Road	1.2	8.60	0.55	A		2.2	11.84	0.70	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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Fish Dam Lane Roundabout
Location	
Site number	
Date	03/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\JGreen
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Weekday Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	7.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	3 - Fish Dam Lane (S)

Arms

Arms

Arm	Name	Description
1	Fish Dam Lane (N)	
2	West Green Way	
3	Fish Dam Lane (S)	
4	Industry Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Fish Dam Lane (N)	4.05	5.85	3.7	14.1	25.3	63.0	
2 - West Green Way	3.46	5.50	8.1	19.3	25.3	34.0	
3 - Fish Dam Lane (S)	3.95	5.70	5.3	16.3	25.3	45.0	
4 - Industry Road	4.00	4.80	2.1	24.0	25.3	47.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Fish Dam Lane (N)	0.526	1246
2 - West Green Way	0.589	1369
3 - Fish Dam Lane (S)	0.573	1363
4 - Industry Road	0.554	1253

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	401	100.000
2 - West Green Way		✓	442	100.000
3 - Fish Dam Lane (S)		✓	621	100.000
4 - Industry Road		✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	230	143	28
	2 - West Green Way	259	0	17	166
	3 - Fish Dam Lane (S)	198	5	0	418
	4 - Industry Road	44	83	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.43	6.25	0.8	A
2 - West Green Way	0.46	6.28	0.8	A
3 - Fish Dam Lane (S)	0.63	9.14	1.7	A
4 - Industry Road	0.49	7.28	1.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	302	295	1090	0.277	300	0.4	4.548	A
2 - West Green Way	333	357	1159	0.287	331	0.4	4.343	A
3 - Fish Dam Lane (S)	468	339	1168	0.400	465	0.7	5.099	A
4 - Industry Road	326	346	1061	0.307	324	0.4	4.874	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	360	354	1060	0.340	360	0.5	5.142	A
2 - West Green Way	397	428	1117	0.356	397	0.5	4.995	A
3 - Fish Dam Lane (S)	558	407	1130	0.494	557	1.0	6.271	A
4 - Industry Road	389	415	1023	0.381	389	0.6	5.668	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	442	433	1018	0.434	441	0.8	6.223	A
2 - West Green Way	487	524	1061	0.459	485	0.8	6.248	A
3 - Fish Dam Lane (S)	684	498	1078	0.634	681	1.7	9.001	A
4 - Industry Road	477	507	972	0.491	475	0.9	7.231	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	442	434	1017	0.434	441	0.8	6.249	A
2 - West Green Way	487	525	1060	0.459	487	0.8	6.281	A
3 - Fish Dam Lane (S)	684	499	1077	0.635	684	1.7	9.141	A
4 - Industry Road	477	509	971	0.491	477	1.0	7.283	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	360	355	1059	0.341	361	0.5	5.169	A
2 - West Green Way	397	430	1116	0.356	398	0.6	5.027	A
3 - Fish Dam Lane (S)	558	408	1129	0.495	561	1.0	6.371	A
4 - Industry Road	389	417	1022	0.381	391	0.6	5.718	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	302	297	1089	0.277	302	0.4	4.577	A
2 - West Green Way	333	360	1157	0.288	333	0.4	4.375	A
3 - Fish Dam Lane (S)	468	342	1167	0.401	469	0.7	5.163	A
4 - Industry Road	326	349	1060	0.308	327	0.4	4.918	A

2018 Weekday Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	6.78	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	4 - Industry Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	339	100.000
2 - West Green Way		✓	285	100.000
3 - Fish Dam Lane (S)		✓	464	100.000
4 - Industry Road		✓	577	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	190	128	21
	2 - West Green Way	186	0	11	88
	3 - Fish Dam Lane (S)	147	17	0	300
	4 - Industry Road	60	117	400	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.40	6.39	0.7	A
2 - West Green Way	0.31	5.15	0.4	A
3 - Fish Dam Lane (S)	0.43	5.40	0.8	A
4 - Industry Road	0.61	8.91	1.6	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	255	400	1035	0.246	254	0.3	4.599	A
2 - West Green Way	215	411	1127	0.190	214	0.2	3.937	A
3 - Fish Dam Lane (S)	349	221	1236	0.283	348	0.4	4.046	A
4 - Industry Road	434	262	1107	0.392	432	0.6	5.309	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	305	479	994	0.307	304	0.4	5.218	A
2 - West Green Way	256	493	1079	0.237	256	0.3	4.373	A
3 - Fish Dam Lane (S)	417	265	1211	0.344	417	0.5	4.528	A
4 - Industry Road	519	314	1079	0.481	518	0.9	6.404	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	373	586	938	0.398	372	0.7	6.361	A
2 - West Green Way	314	602	1014	0.309	313	0.4	5.135	A
3 - Fish Dam Lane (S)	511	324	1177	0.434	510	0.8	5.387	A
4 - Industry Road	635	385	1040	0.611	633	1.5	8.796	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	373	588	936	0.399	373	0.7	6.391	A
2 - West Green Way	314	604	1013	0.310	314	0.4	5.147	A
3 - Fish Dam Lane (S)	511	325	1177	0.434	511	0.8	5.405	A
4 - Industry Road	635	385	1039	0.611	635	1.6	8.907	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	305	482	992	0.307	306	0.4	5.250	A
2 - West Green Way	256	496	1077	0.238	257	0.3	4.390	A
3 - Fish Dam Lane (S)	417	266	1211	0.345	418	0.5	4.548	A
4 - Industry Road	519	315	1078	0.481	521	0.9	6.492	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	255	403	1034	0.247	256	0.3	4.631	A
2 - West Green Way	215	414	1125	0.191	215	0.2	3.956	A
3 - Fish Dam Lane (S)	349	222	1235	0.283	350	0.4	4.068	A
4 - Industry Road	434	264	1106	0.393	436	0.7	5.374	A

2022 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	8.13	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	3 - Fish Dam Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	420	100.000
2 - West Green Way		✓	463	100.000
3 - Fish Dam Lane (S)		✓	650	100.000
4 - Industry Road		✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	241	150	29
	2 - West Green Way	271	0	18	174
	3 - Fish Dam Lane (S)	207	5	0	438
	4 - Industry Road	46	87	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.46	6.61	0.8	A
2 - West Green Way	0.49	6.72	0.9	A
3 - Fish Dam Lane (S)	0.67	10.32	2.0	B
4 - Industry Road	0.52	7.83	1.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	316	308	1083	0.292	315	0.4	4.673	A
2 - West Green Way	349	374	1149	0.303	347	0.4	4.480	A
3 - Fish Dam Lane (S)	489	355	1159	0.422	486	0.7	5.327	A
4 - Industry Road	341	362	1052	0.324	339	0.5	5.035	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	378	370	1051	0.359	377	0.6	5.335	A
2 - West Green Way	416	448	1105	0.377	416	0.6	5.216	A
3 - Fish Dam Lane (S)	584	425	1119	0.522	583	1.1	6.695	A
4 - Industry Road	407	433	1013	0.402	406	0.7	5.932	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	462	452	1008	0.459	461	0.8	6.574	A
2 - West Green Way	510	548	1046	0.487	508	0.9	6.676	A
3 - Fish Dam Lane (S)	716	521	1065	0.672	712	2.0	10.102	B
4 - Industry Road	499	530	959	0.520	497	1.1	7.765	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	462	454	1007	0.459	462	0.8	6.609	A
2 - West Green Way	510	549	1045	0.488	510	0.9	6.719	A
3 - Fish Dam Lane (S)	716	522	1064	0.673	716	2.0	10.320	B
4 - Industry Road	499	532	958	0.521	499	1.1	7.835	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	378	372	1050	0.360	379	0.6	5.372	A
2 - West Green Way	416	450	1104	0.377	418	0.6	5.257	A
3 - Fish Dam Lane (S)	584	427	1118	0.523	588	1.1	6.836	A
4 - Industry Road	407	436	1011	0.403	409	0.7	5.992	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	316	311	1082	0.292	317	0.4	4.707	A
2 - West Green Way	349	376	1147	0.304	349	0.4	4.516	A
3 - Fish Dam Lane (S)	489	358	1158	0.423	491	0.7	5.409	A
4 - Industry Road	341	365	1051	0.325	342	0.5	5.083	A

2022 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	7.27	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	4 - Industry Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	355	100.000
2 - West Green Way		✓	297	100.000
3 - Fish Dam Lane (S)		✓	484	100.000
4 - Industry Road		✓	602	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	199	134	22
	2 - West Green Way	194	0	11	92
	3 - Fish Dam Lane (S)	153	18	0	313
	4 - Industry Road	63	122	417	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.42	6.76	0.7	A
2 - West Green Way	0.33	5.37	0.5	A
3 - Fish Dam Lane (S)	0.46	5.66	0.8	A
4 - Industry Road	0.64	9.79	1.8	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	267	417	1026	0.260	266	0.3	4.725	A
2 - West Green Way	224	429	1116	0.200	223	0.2	4.024	A
3 - Fish Dam Lane (S)	364	231	1231	0.296	363	0.4	4.140	A
4 - Industry Road	453	274	1101	0.412	450	0.7	5.510	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	319	500	983	0.325	319	0.5	5.420	A
2 - West Green Way	267	514	1066	0.250	267	0.3	4.500	A
3 - Fish Dam Lane (S)	435	277	1204	0.361	435	0.6	4.673	A
4 - Industry Road	541	328	1071	0.505	540	1.0	6.760	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	391	611	924	0.423	390	0.7	6.721	A
2 - West Green Way	327	628	999	0.327	326	0.5	5.348	A
3 - Fish Dam Lane (S)	533	338	1169	0.456	532	0.8	5.641	A
4 - Industry Road	663	401	1030	0.643	660	1.8	9.634	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	391	613	923	0.423	391	0.7	6.763	A
2 - West Green Way	327	631	998	0.328	327	0.5	5.368	A
3 - Fish Dam Lane (S)	533	339	1169	0.456	533	0.8	5.662	A
4 - Industry Road	663	402	1030	0.643	663	1.8	9.793	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	319	503	981	0.325	320	0.5	5.458	A
2 - West Green Way	267	518	1064	0.251	268	0.3	4.524	A
3 - Fish Dam Lane (S)	435	278	1204	0.361	436	0.6	4.695	A
4 - Industry Road	541	329	1070	0.506	544	1.0	6.879	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	267	421	1024	0.261	268	0.4	4.762	A
2 - West Green Way	224	433	1114	0.201	224	0.3	4.044	A
3 - Fish Dam Lane (S)	364	232	1230	0.296	365	0.4	4.166	A
4 - Industry Road	453	275	1100	0.412	455	0.7	5.588	A

2027 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	8.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	20	3 - Fish Dam Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	438	100.000
2 - West Green Way		✓	482	100.000
3 - Fish Dam Lane (S)		✓	677	100.000
4 - Industry Road		✓	471	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	251	156	31
	2 - West Green Way	282	0	19	181
	3 - Fish Dam Lane (S)	216	5	0	456
	4 - Industry Road	48	90	333	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.48	6.98	0.9	A
2 - West Green Way	0.51	7.18	1.0	A
3 - Fish Dam Lane (S)	0.71	11.74	2.4	B
4 - Industry Road	0.55	8.42	1.2	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	330	320	1077	0.306	328	0.4	4.795	A
2 - West Green Way	363	389	1140	0.318	361	0.5	4.612	A
3 - Fish Dam Lane (S)	510	370	1151	0.443	507	0.8	5.560	A
4 - Industry Road	355	377	1044	0.340	353	0.5	5.192	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	394	384	1044	0.377	393	0.6	5.527	A
2 - West Green Way	433	467	1094	0.396	433	0.6	5.436	A
3 - Fish Dam Lane (S)	609	443	1109	0.549	607	1.2	7.149	A
4 - Industry Road	423	451	1003	0.422	423	0.7	6.196	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	482	470	999	0.483	481	0.9	6.937	A
2 - West Green Way	531	571	1033	0.514	529	1.0	7.146	A
3 - Fish Dam Lane (S)	745	542	1052	0.708	741	2.3	11.393	B
4 - Industry Road	519	551	947	0.547	517	1.2	8.326	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	482	471	998	0.483	482	0.9	6.981	A
2 - West Green Way	531	572	1032	0.514	531	1.0	7.182	A
3 - Fish Dam Lane (S)	745	544	1051	0.709	745	2.4	11.737	B
4 - Industry Road	519	554	946	0.548	519	1.2	8.420	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	394	386	1042	0.378	395	0.6	5.571	A
2 - West Green Way	433	469	1093	0.397	435	0.7	5.485	A
3 - Fish Dam Lane (S)	609	446	1108	0.549	613	1.2	7.345	A
4 - Industry Road	423	455	1001	0.423	425	0.7	6.275	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	330	323	1076	0.307	330	0.4	4.834	A
2 - West Green Way	363	392	1138	0.319	364	0.5	4.655	A
3 - Fish Dam Lane (S)	510	373	1149	0.443	511	0.8	5.659	A
4 - Industry Road	355	380	1042	0.340	355	0.5	5.249	A

2027 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	7.86	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	4 - Industry Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	369	100.000
2 - West Green Way		✓	310	100.000
3 - Fish Dam Lane (S)		✓	504	100.000
4 - Industry Road		✓	628	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	207	139	23
	2 - West Green Way	202	0	12	96
	3 - Fish Dam Lane (S)	160	18	0	326
	4 - Industry Road	66	127	435	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.45	7.15	0.8	A
2 - West Green Way	0.35	5.62	0.5	A
3 - Fish Dam Lane (S)	0.48	5.94	0.9	A
4 - Industry Road	0.68	10.91	2.1	B

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	278	434	1017	0.273	276	0.4	4.847	A
2 - West Green Way	233	447	1106	0.211	232	0.3	4.116	A
3 - Fish Dam Lane (S)	379	241	1225	0.310	378	0.4	4.240	A
4 - Industry Road	473	285	1095	0.432	470	0.8	5.731	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	332	520	972	0.341	331	0.5	5.612	A
2 - West Green Way	279	535	1054	0.264	278	0.4	4.641	A
3 - Fish Dam Lane (S)	453	288	1198	0.378	452	0.6	4.826	A
4 - Industry Road	565	341	1064	0.531	563	1.1	7.172	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	406	635	911	0.446	405	0.8	7.094	A
2 - West Green Way	341	654	984	0.347	341	0.5	5.592	A
3 - Fish Dam Lane (S)	555	353	1161	0.478	554	0.9	5.917	A
4 - Industry Road	691	418	1021	0.677	688	2.0	10.674	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	406	638	910	0.447	406	0.8	7.148	A
2 - West Green Way	341	657	982	0.348	341	0.5	5.618	A
3 - Fish Dam Lane (S)	555	353	1160	0.478	555	0.9	5.944	A
4 - Industry Road	691	418	1021	0.677	691	2.1	10.909	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	332	525	970	0.342	333	0.5	5.664	A
2 - West Green Way	279	540	1051	0.265	279	0.4	4.669	A
3 - Fish Dam Lane (S)	453	289	1197	0.378	454	0.6	4.855	A
4 - Industry Road	565	342	1063	0.531	568	1.2	7.330	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	278	438	1015	0.274	278	0.4	4.889	A
2 - West Green Way	233	451	1104	0.211	234	0.3	4.140	A
3 - Fish Dam Lane (S)	379	242	1224	0.310	380	0.5	4.267	A
4 - Industry Road	473	287	1094	0.432	474	0.8	5.824	A

2022 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	8.52	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	3 - Fish Dam Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	464	100.000
2 - West Green Way		✓	466	100.000
3 - Fish Dam Lane (S)		✓	662	100.000
4 - Industry Road		✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	249	186	29
	2 - West Green Way	274	0	18	174
	3 - Fish Dam Lane (S)	219	5	0	438
	4 - Industry Road	46	87	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.51	7.25	1.0	A
2 - West Green Way	0.50	7.07	1.0	A
3 - Fish Dam Lane (S)	0.69	10.78	2.1	B
4 - Industry Road	0.53	7.99	1.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	349	308	1083	0.322	347	0.5	4.880	A
2 - West Green Way	351	401	1133	0.310	349	0.4	4.581	A
3 - Fish Dam Lane (S)	498	357	1158	0.430	495	0.7	5.408	A
4 - Industry Road	341	373	1046	0.326	339	0.5	5.079	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	417	370	1051	0.397	416	0.7	5.665	A
2 - West Green Way	419	480	1086	0.386	418	0.6	5.383	A
3 - Fish Dam Lane (S)	595	428	1118	0.532	594	1.1	6.850	A
4 - Industry Road	407	447	1005	0.405	406	0.7	6.005	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	511	452	1008	0.507	509	1.0	7.203	A
2 - West Green Way	513	587	1023	0.501	512	1.0	7.017	A
3 - Fish Dam Lane (S)	729	524	1063	0.686	725	2.1	10.527	B
4 - Industry Road	499	546	950	0.525	497	1.1	7.917	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	511	454	1007	0.507	511	1.0	7.254	A
2 - West Green Way	513	589	1022	0.502	513	1.0	7.070	A
3 - Fish Dam Lane (S)	729	525	1062	0.686	729	2.1	10.784	B
4 - Industry Road	499	548	949	0.526	499	1.1	7.994	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	417	372	1050	0.397	419	0.7	5.715	A
2 - West Green Way	419	483	1085	0.386	420	0.6	5.430	A
3 - Fish Dam Lane (S)	595	430	1116	0.533	599	1.2	7.009	A
4 - Industry Road	407	450	1003	0.406	409	0.7	6.072	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	349	311	1082	0.323	350	0.5	4.924	A
2 - West Green Way	351	404	1131	0.310	352	0.5	4.623	A
3 - Fish Dam Lane (S)	498	360	1157	0.431	500	0.8	5.493	A
4 - Industry Road	341	376	1044	0.327	342	0.5	5.131	A

2022 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	7.69	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	4 - Industry Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	377	100.000
2 - West Green Way		✓	305	100.000
3 - Fish Dam Lane (S)		✓	519	100.000
4 - Industry Road		✓	602	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	203	152	22
	2 - West Green Way	202	0	11	92
	3 - Fish Dam Lane (S)	188	18	0	313
	4 - Industry Road	63	122	417	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.45	7.08	0.8	A
2 - West Green Way	0.34	5.54	0.5	A
3 - Fish Dam Lane (S)	0.49	6.08	1.0	A
4 - Industry Road	0.66	10.54	1.9	B

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	284	417	1026	0.277	282	0.4	4.828	A
2 - West Green Way	230	442	1109	0.207	229	0.3	4.085	A
3 - Fish Dam Lane (S)	391	237	1227	0.318	389	0.5	4.284	A
4 - Industry Road	453	306	1083	0.418	450	0.7	5.664	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	339	500	983	0.345	338	0.5	5.580	A
2 - West Green Way	274	530	1057	0.259	274	0.3	4.595	A
3 - Fish Dam Lane (S)	467	284	1200	0.389	466	0.6	4.897	A
4 - Industry Road	541	366	1050	0.516	540	1.0	7.042	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	415	610	925	0.449	414	0.8	7.033	A
2 - West Green Way	336	648	987	0.340	335	0.5	5.512	A
3 - Fish Dam Lane (S)	571	347	1164	0.491	570	1.0	6.048	A
4 - Industry Road	663	448	1004	0.660	659	1.9	10.338	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	415	613	923	0.450	415	0.8	7.085	A
2 - West Green Way	336	651	986	0.341	336	0.5	5.537	A
3 - Fish Dam Lane (S)	571	348	1164	0.491	571	1.0	6.078	A
4 - Industry Road	663	449	1004	0.660	663	1.9	10.541	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	339	504	981	0.346	340	0.5	5.630	A
2 - West Green Way	274	534	1054	0.260	275	0.4	4.622	A
3 - Fish Dam Lane (S)	467	285	1200	0.389	468	0.6	4.926	A
4 - Industry Road	541	368	1049	0.516	544	1.1	7.184	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	284	421	1024	0.277	284	0.4	4.870	A
2 - West Green Way	230	446	1106	0.208	230	0.3	4.109	A
3 - Fish Dam Lane (S)	391	238	1226	0.319	391	0.5	4.316	A
4 - Industry Road	453	308	1082	0.419	455	0.7	5.748	A

2027 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	9.38	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	18	3 - Fish Dam Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	482	100.000
2 - West Green Way		✓	485	100.000
3 - Fish Dam Lane (S)		✓	689	100.000
4 - Industry Road		✓	471	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	259	192	31
	2 - West Green Way	285	0	19	181
	3 - Fish Dam Lane (S)	228	5	0	456
	4 - Industry Road	48	90	333	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.53	7.70	1.1	A
2 - West Green Way	0.53	7.58	1.1	A
3 - Fish Dam Lane (S)	0.72	12.34	2.5	B
4 - Industry Road	0.55	8.60	1.2	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	363	320	1077	0.337	361	0.5	5.011	A
2 - West Green Way	365	416	1124	0.325	363	0.5	4.722	A
3 - Fish Dam Lane (S)	519	372	1150	0.451	515	0.8	5.649	A
4 - Industry Road	355	388	1038	0.342	353	0.5	5.237	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	433	384	1044	0.415	433	0.7	5.883	A
2 - West Green Way	436	499	1075	0.406	435	0.7	5.618	A
3 - Fish Dam Lane (S)	619	446	1107	0.559	618	1.2	7.323	A
4 - Industry Road	423	465	995	0.425	423	0.7	6.277	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	531	469	999	0.531	529	1.1	7.637	A
2 - West Green Way	534	610	1010	0.529	532	1.1	7.512	A
3 - Fish Dam Lane (S)	759	545	1050	0.722	754	2.5	11.931	B
4 - Industry Road	519	568	938	0.553	517	1.2	8.501	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	531	471	998	0.532	531	1.1	7.705	A
2 - West Green Way	534	612	1009	0.529	534	1.1	7.585	A
3 - Fish Dam Lane (S)	759	547	1049	0.723	758	2.5	12.339	B
4 - Industry Road	519	570	937	0.554	519	1.2	8.604	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	433	387	1042	0.416	435	0.7	5.941	A
2 - West Green Way	436	502	1073	0.406	438	0.7	5.679	A
3 - Fish Dam Lane (S)	619	449	1106	0.560	624	1.3	7.552	A
4 - Industry Road	423	468	993	0.426	425	0.8	6.361	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	363	323	1076	0.337	364	0.5	5.063	A
2 - West Green Way	365	420	1122	0.325	366	0.5	4.767	A
3 - Fish Dam Lane (S)	519	375	1148	0.452	521	0.8	5.755	A
4 - Industry Road	355	391	1036	0.342	356	0.5	5.298	A

2027 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Fish Dam Lane Roundabout	Standard Roundabout	1, 2, 3, 4	8.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	4 - Industry Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Fish Dam Lane (N)		✓	391	100.000
2 - West Green Way		✓	318	100.000
3 - Fish Dam Lane (S)		✓	539	100.000
4 - Industry Road		✓	628	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	211	157	23
	2 - West Green Way	210	0	12	96
	3 - Fish Dam Lane (S)	195	18	0	326
	4 - Industry Road	66	127	435	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Fish Dam Lane (N)	2 - West Green Way	3 - Fish Dam Lane (S)	4 - Industry Road
From	1 - Fish Dam Lane (N)	0	0	0	0
	2 - West Green Way	0	0	0	0
	3 - Fish Dam Lane (S)	0	0	0	0
	4 - Industry Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Fish Dam Lane (N)	0.47	7.51	0.9	A
2 - West Green Way	0.36	5.80	0.6	A
3 - Fish Dam Lane (S)	0.51	6.41	1.0	A
4 - Industry Road	0.70	11.84	2.2	B

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	294	434	1017	0.289	293	0.4	4.956	A
2 - West Green Way	239	460	1098	0.218	238	0.3	4.182	A
3 - Fish Dam Lane (S)	406	247	1222	0.332	404	0.5	4.391	A
4 - Industry Road	473	317	1077	0.439	470	0.8	5.898	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	352	520	972	0.362	351	0.6	5.788	A
2 - West Green Way	286	552	1044	0.274	285	0.4	4.743	A
3 - Fish Dam Lane (S)	485	295	1194	0.406	484	0.7	5.066	A
4 - Industry Road	565	380	1042	0.542	563	1.2	7.487	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	430	635	912	0.472	429	0.9	7.442	A
2 - West Green Way	350	674	972	0.360	349	0.6	5.772	A
3 - Fish Dam Lane (S)	593	361	1156	0.513	592	1.0	6.368	A
4 - Industry Road	691	465	995	0.695	687	2.2	11.538	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	430	638	910	0.473	430	0.9	7.509	A
2 - West Green Way	350	677	970	0.361	350	0.6	5.803	A
3 - Fish Dam Lane (S)	593	362	1155	0.514	593	1.0	6.405	A
4 - Industry Road	691	466	995	0.695	691	2.2	11.845	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	352	525	969	0.363	353	0.6	5.849	A
2 - West Green Way	286	556	1041	0.275	287	0.4	4.773	A
3 - Fish Dam Lane (S)	485	297	1193	0.406	486	0.7	5.103	A
4 - Industry Road	565	381	1041	0.542	569	1.2	7.678	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Fish Dam Lane (N)	294	438	1015	0.290	295	0.4	5.004	A
2 - West Green Way	239	464	1095	0.219	240	0.3	4.208	A
3 - Fish Dam Lane (S)	406	248	1221	0.332	407	0.5	4.427	A
4 - Industry Road	473	319	1076	0.439	474	0.8	6.003	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947

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Filename: J6 A628 Rbt.j9
Path: \\rsbgukfs01\WAKEngineer\data\102107 - Shaw Lane, Barnsley\Calcs\30-11-2021
Report generation date: 15/12/2021 10:05:36

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2018 Weekday Observed										
1 - West Green Way	2.3	16.50	0.70	C	1 % [3 - Barnsley Road]	8.1	50.06	0.92	F	-3 % [1 - West Green Way]
2 - A628 Cudworth Parkway	2.8	14.08	0.75	B		2.2	13.93	0.70	B	
3 - Barnsley Road	4.7	32.58	0.84	D		2.9	21.27	0.75	C	
4 - A628 Pontefract Road	4.1	18.53	0.81	C		1.9	9.54	0.66	A	
5 - Burton Road	4.4	31.43	0.83	D		3.2	21.61	0.77	C	
2022 Weekday Factored										
1 - West Green Way	3.0	20.71	0.76	C	-4 % [3 - Barnsley Road]	16.3	90.90	0.99	F	-8 % [1 - West Green Way]
2 - A628 Cudworth Parkway	3.7	17.91	0.80	C		2.8	16.96	0.74	C	
3 - Barnsley Road	7.5	50.55	0.91	F		3.9	27.42	0.81	D	
4 - A628 Pontefract Road	6.1	26.45	0.87	D		2.3	11.05	0.70	B	
5 - Burton Road	7.4	50.97	0.91	F		4.6	29.84	0.83	D	
2027 Weekday Factored										
1 - West Green Way	3.9	26.32	0.81	D	-8 % [3 - Barnsley Road]	31.2	153.83	1.07	F	-11 % [1 - West Green Way]
2 - A628 Cudworth Parkway	5.1	23.66	0.85	C		3.5	20.53	0.79	C	
3 - Barnsley Road	13.8	85.95	0.98	F		5.3	36.73	0.86	E	
4 - A628 Pontefract Road	9.7	40.57	0.93	E		2.8	13.04	0.75	B	
5 - Burton Road	13.6	85.71	0.98	F		6.9	44.35	0.90	E	
2022 Weekday Peak + Development										
1 - West Green Way	3.2	21.89	0.77	C	-4 % [3 - Barnsley Road]	17.4	95.31	1.00	F	-8 % [1 - West Green Way]
2 - A628 Cudworth Parkway	3.8	18.44	0.80	C		2.8	17.08	0.75	C	
3 - Barnsley Road	7.9	53.52	0.91	F		3.9	27.79	0.81	D	
4 - A628 Pontefract Road	6.2	26.97	0.88	D		2.4	11.35	0.71	B	
5 - Burton Road	7.5	51.88	0.91	F		4.7	31.00	0.84	D	
2027 Weekday Peak + Development										
1 - West Green Way	4.2	27.92	0.82	D	-8 % [3 - Barnsley Road]	32.8	159.94	1.08	F	-12 % [1 - West Green Way]
2 - A628 Cudworth Parkway	5.2	24.43	0.85	C		3.5	20.62	0.79	C	
3 - Barnsley Road	14.7	90.88	0.99	F		5.4	37.23	0.86	E	
4 - A628 Pontefract Road	9.9	41.38	0.93	E		2.9	13.45	0.75	B	
5 - Burton Road	13.8	87.17	0.98	F		7.3	46.60	0.90	E	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	A628 Roundabout
Location	
Site number	
Date	03/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\JGreen
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Weekday Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	21.74	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	3 - Barnsley Road

Arms

Arms

Arm	Name	Description
1	West Green Way	
2	A628 Cudworth Parkway	
3	Barnsley Road	
4	A628 Pontefract Road	
5	Burton Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - West Green Way	3.70	4.35	6.2	24.0	30.2	37.0	
2 - A628 Cudworth Parkway	3.85	5.00	19.3	30.3	30.2	26.0	
3 - Barnsley Road	3.30	4.15	11.4	21.9	30.2	42.0	
4 - A628 Pontefract Road	3.90	5.40	18.9	28.4	30.2	27.0	
5 - Burton Road	3.65	4.60	4.2	20.3	30.2	35.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - West Green Way	0.560	1248
2 - A628 Cudworth Parkway	0.627	1504
3 - Barnsley Road	0.536	1163
4 - A628 Pontefract Road	0.641	1583
5 - Burton Road	0.561	1252

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Weekday Observed	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	468	100.000
2 - A628 Cudworth Parkway		✓	676	100.000
3 - Barnsley Road		✓	496	100.000
4 - A628 Pontefract Road		✓	762	100.000
5 - Burton Road		✓	486	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	161	159	118	30
	2 - A628 Cudworth Parkway	154	0	4	277	241
	3 - Barnsley Road	129	4	0	137	226
	4 - A628 Pontefract Road	278	202	218	0	64
	5 - Burton Road	72	206	161	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.70	16.50	2.3	C
2 - A628 Cudworth Parkway	0.75	14.08	2.8	B
3 - Barnsley Road	0.84	32.58	4.7	D
4 - A628 Pontefract Road	0.81	18.53	4.1	C
5 - Burton Road	0.83	31.43	4.4	D

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	352	626	897	0.393	350	0.6	6.551	A
2 - A628 Cudworth Parkway	509	548	1160	0.439	506	0.8	5.477	A
3 - Barnsley Road	373	649	815	0.458	370	0.8	8.036	A
4 - A628 Pontefract Road	574	586	1207	0.475	570	0.9	5.623	A
5 - Burton Road	366	737	839	0.436	363	0.8	7.519	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	421	750	828	0.508	419	1.0	8.786	A
2 - A628 Cudworth Parkway	608	656	1092	0.556	606	1.2	7.374	A
3 - Barnsley Road	446	777	746	0.598	443	1.4	11.799	B
4 - A628 Pontefract Road	685	702	1132	0.605	683	1.5	7.960	A
5 - Burton Road	437	882	757	0.577	435	1.3	11.092	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	515	908	739	0.697	511	2.2	15.460	C
2 - A628 Cudworth Parkway	744	797	1004	0.741	738	2.7	13.256	B
3 - Barnsley Road	546	946	655	0.833	535	4.2	27.693	D
4 - A628 Pontefract Road	839	851	1036	0.809	829	3.9	16.675	C
5 - Burton Road	535	1071	651	0.822	525	4.0	26.568	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	515	921	732	0.704	515	2.3	16.505	C
2 - A628 Cudworth Parkway	744	806	999	0.745	744	2.8	14.077	B
3 - Barnsley Road	546	954	651	0.839	544	4.7	32.584	D
4 - A628 Pontefract Road	839	862	1030	0.815	838	4.1	18.528	C
5 - Burton Road	535	1083	644	0.830	533	4.4	31.431	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	421	769	817	0.515	426	1.1	9.309	A
2 - A628 Cudworth Parkway	608	670	1084	0.561	614	1.3	7.761	A
3 - Barnsley Road	446	788	740	0.603	458	1.6	13.295	B
4 - A628 Pontefract Road	685	718	1122	0.610	695	1.6	8.622	A
5 - Burton Road	437	900	747	0.585	449	1.5	12.507	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	352	635	892	0.395	354	0.7	6.709	A
2 - A628 Cudworth Parkway	509	555	1156	0.440	511	0.8	5.601	A
3 - Barnsley Road	373	656	811	0.460	376	0.9	8.330	A
4 - A628 Pontefract Road	574	594	1202	0.477	576	0.9	5.782	A
5 - Burton Road	366	745	834	0.439	369	0.8	7.781	A

2018 Weekday Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	23.01	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-3	1 - West Green Way

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018 Weekday Observed	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	569	100.000
2 - A628 Cudworth Parkway		✓	533	100.000
3 - Barnsley Road		✓	467	100.000
4 - A628 Pontefract Road		✓	670	100.000
5 - Burton Road		✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	120	219	192	38
	2 - A628 Cudworth Parkway	102	0	3	264	164
	3 - Barnsley Road	144	1	0	107	215
	4 - A628 Pontefract Road	179	218	217	0	56
	5 - Burton Road	27	184	236	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.92	50.06	8.1	F
2 - A628 Cudworth Parkway	0.70	13.93	2.2	B
3 - Barnsley Road	0.75	21.27	2.9	C
4 - A628 Pontefract Road	0.66	9.54	1.9	A
5 - Burton Road	0.77	21.61	3.2	C

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	428	684	865	0.495	425	1.0	8.109	A
2 - A628 Cudworth Parkway	401	717	1054	0.381	399	0.6	5.475	A
3 - Barnsley Road	352	612	835	0.421	349	0.7	7.365	A
4 - A628 Pontefract Road	504	496	1264	0.399	502	0.7	4.705	A
5 - Burton Road	380	644	890	0.427	377	0.7	6.979	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	512	819	789	0.648	508	1.8	12.680	B
2 - A628 Cudworth Parkway	479	859	965	0.496	478	1.0	7.363	A
3 - Barnsley Road	420	732	770	0.545	418	1.2	10.175	B
4 - A628 Pontefract Road	602	595	1201	0.501	601	1.0	5.984	A
5 - Burton Road	454	772	819	0.554	452	1.2	9.765	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	626	997	689	0.909	607	6.8	37.045	E
2 - A628 Cudworth Parkway	587	1036	854	0.687	582	2.1	13.027	B
3 - Barnsley Road	514	887	687	0.749	508	2.7	19.452	C
4 - A628 Pontefract Road	738	723	1119	0.659	734	1.9	9.268	A
5 - Burton Road	556	942	723	0.769	549	3.0	19.825	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	626	1006	684	0.915	621	8.1	50.061	F
2 - A628 Cudworth Parkway	587	1052	844	0.695	586	2.2	13.932	B
3 - Barnsley Road	514	898	681	0.755	513	2.9	21.271	C
4 - A628 Pontefract Road	738	730	1114	0.662	738	1.9	9.542	A
5 - Burton Road	556	948	720	0.772	555	3.2	21.608	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	512	831	782	0.654	536	2.0	15.977	C
2 - A628 Cudworth Parkway	479	888	947	0.506	484	1.0	7.852	A
3 - Barnsley Road	420	751	760	0.552	426	1.3	10.994	B
4 - A628 Pontefract Road	602	606	1194	0.505	606	1.0	6.161	A
5 - Burton Road	454	780	814	0.558	462	1.3	10.425	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	428	691	861	0.498	432	1.0	8.477	A
2 - A628 Cudworth Parkway	401	727	1048	0.383	403	0.6	5.598	A
3 - Barnsley Road	352	619	831	0.423	354	0.7	7.579	A
4 - A628 Pontefract Road	504	503	1260	0.400	506	0.7	4.781	A
5 - Burton Road	380	650	887	0.429	382	0.8	7.163	A

2022 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	31.79	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	3 - Barnsley Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2022 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	489	100.000
2 - A628 Cudworth Parkway		✓	707	100.000
3 - Barnsley Road		✓	518	100.000
4 - A628 Pontefract Road		✓	798	100.000
5 - Burton Road		✓	509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	168	167	123	31
	2 - A628 Cudworth Parkway	161	0	4	290	252
	3 - Barnsley Road	135	4	0	143	236
	4 - A628 Pontefract Road	291	212	228	0	67
	5 - Burton Road	75	216	169	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.76	20.71	3.0	C
2 - A628 Cudworth Parkway	0.80	17.91	3.7	C
3 - Barnsley Road	0.91	50.55	7.5	F
4 - A628 Pontefract Road	0.87	26.45	6.1	D
5 - Burton Road	0.91	50.97	7.4	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	368	656	880	0.418	365	0.7	6.953	A
2 - A628 Cudworth Parkway	532	573	1144	0.465	529	0.9	5.815	A
3 - Barnsley Road	390	677	799	0.488	386	0.9	8.637	A
4 - A628 Pontefract Road	601	612	1190	0.505	597	1.0	6.024	A
5 - Burton Road	383	771	819	0.468	380	0.9	8.125	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	440	785	808	0.544	438	1.2	9.678	A
2 - A628 Cudworth Parkway	636	686	1073	0.592	633	1.4	8.137	A
3 - Barnsley Road	466	811	728	0.640	463	1.7	13.427	B
4 - A628 Pontefract Road	717	733	1113	0.645	714	1.8	8.968	A
5 - Burton Road	458	923	734	0.623	455	1.6	12.742	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	538	943	719	0.749	532	2.8	18.627	C
2 - A628 Cudworth Parkway	778	829	984	0.791	770	3.5	16.226	C
3 - Barnsley Road	570	986	634	0.899	552	6.2	37.751	E
4 - A628 Pontefract Road	879	883	1016	0.865	864	5.4	21.878	C
5 - Burton Road	560	1115	626	0.895	543	6.0	37.157	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	538	961	710	0.759	538	3.0	20.708	C
2 - A628 Cudworth Parkway	778	841	976	0.797	777	3.7	17.908	C
3 - Barnsley Road	570	996	629	0.907	565	7.5	50.554	F
4 - A628 Pontefract Road	879	898	1007	0.873	876	6.1	26.455	D
5 - Burton Road	560	1131	617	0.908	555	7.4	50.973	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	440	818	790	0.557	446	1.3	10.680	B
2 - A628 Cudworth Parkway	636	708	1060	0.600	644	1.5	8.842	A
3 - Barnsley Road	466	827	719	0.648	488	1.9	16.928	C
4 - A628 Pontefract Road	717	758	1096	0.654	734	1.9	10.355	B
5 - Burton Road	458	950	719	0.636	480	1.8	16.339	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	368	666	875	0.421	370	0.7	7.173	A
2 - A628 Cudworth Parkway	532	581	1139	0.467	535	0.9	5.982	A
3 - Barnsley Road	390	686	795	0.491	394	1.0	9.053	A
4 - A628 Pontefract Road	601	621	1184	0.507	604	1.0	6.245	A
5 - Burton Road	383	781	814	0.471	387	0.9	8.505	A

2022 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	35.02	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	1 - West Green Way

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2022 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	595	100.000
2 - A628 Cudworth Parkway		✓	555	100.000
3 - Barnsley Road		✓	487	100.000
4 - A628 Pontefract Road		✓	700	100.000
5 - Burton Road		✓	528	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	125	229	201	40
	2 - A628 Cudworth Parkway	106	0	3	275	171
	3 - Barnsley Road	150	1	0	112	224
	4 - A628 Pontefract Road	187	228	227	0	58
	5 - Burton Road	28	193	246	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.99	90.90	16.3	F
2 - A628 Cudworth Parkway	0.74	16.96	2.8	C
3 - Barnsley Road	0.81	27.42	3.9	D
4 - A628 Pontefract Road	0.70	11.05	2.3	B
5 - Burton Road	0.83	29.84	4.6	D

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	448	715	847	0.529	444	1.1	8.823	A
2 - A628 Cudworth Parkway	418	750	1034	0.404	415	0.7	5.796	A
3 - Barnsley Road	367	638	821	0.447	363	0.8	7.824	A
4 - A628 Pontefract Road	527	517	1251	0.421	524	0.7	4.932	A
5 - Burton Road	398	673	874	0.455	394	0.8	7.446	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	535	856	768	0.696	531	2.2	14.885	B
2 - A628 Cudworth Parkway	499	897	941	0.530	497	1.1	8.078	A
3 - Barnsley Road	438	764	753	0.581	436	1.3	11.261	B
4 - A628 Pontefract Road	629	619	1185	0.531	628	1.1	6.437	A
5 - Burton Road	475	806	800	0.593	472	1.4	10.909	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	655	1039	666	0.984	618	11.3	54.692	F
2 - A628 Cudworth Parkway	611	1069	834	0.733	605	2.6	15.373	C
3 - Barnsley Road	536	918	670	0.800	527	3.5	23.869	C
4 - A628 Pontefract Road	771	750	1102	0.700	766	2.2	10.591	B
5 - Burton Road	581	982	701	0.829	570	4.2	25.651	D

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	655	1051	659	0.994	635	16.3	90.895	F
2 - A628 Cudworth Parkway	611	1089	821	0.744	610	2.8	16.957	C
3 - Barnsley Road	536	931	663	0.808	535	3.9	27.424	D
4 - A628 Pontefract Road	771	759	1096	0.703	770	2.3	11.048	B
5 - Burton Road	581	989	697	0.834	580	4.6	29.838	D

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	535	874	758	0.706	590	2.6	27.508	D
2 - A628 Cudworth Parkway	499	955	905	0.551	505	1.3	9.130	A
3 - Barnsley Road	438	798	735	0.596	447	1.5	12.892	B
4 - A628 Pontefract Road	629	636	1175	0.536	634	1.2	6.712	A
5 - Burton Road	475	816	794	0.598	487	1.5	12.156	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	448	723	842	0.532	454	1.2	9.386	A
2 - A628 Cudworth Parkway	418	762	1026	0.407	420	0.7	5.966	A
3 - Barnsley Road	367	648	815	0.450	369	0.8	8.121	A
4 - A628 Pontefract Road	527	525	1246	0.423	529	0.7	5.032	A
5 - Burton Road	398	680	871	0.457	400	0.9	7.697	A

2027 Weekday Factored, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	49.68	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - Barnsley Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Weekday Factored	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	510	100.000
2 - A628 Cudworth Parkway		✓	737	100.000
3 - Barnsley Road		✓	540	100.000
4 - A628 Pontefract Road		✓	832	100.000
5 - Burton Road		✓	530	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	175	173	129	33
	2 - A628 Cudworth Parkway	168	0	4	302	263
	3 - Barnsley Road	141	4	0	149	246
	4 - A628 Pontefract Road	303	221	238	0	70
	5 - Burton Road	78	225	176	51	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.81	26.32	3.9	D
2 - A628 Cudworth Parkway	0.85	23.66	5.1	C
3 - Barnsley Road	0.98	85.95	13.8	F
4 - A628 Pontefract Road	0.93	40.57	9.7	E
5 - Burton Road	0.98	85.71	13.6	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	384	683	865	0.444	381	0.8	7.387	A
2 - A628 Cudworth Parkway	555	597	1129	0.491	551	1.0	6.186	A
3 - Barnsley Road	407	707	784	0.519	402	1.1	9.345	A
4 - A628 Pontefract Road	626	638	1173	0.534	622	1.1	6.479	A
5 - Burton Road	399	803	801	0.498	395	1.0	8.782	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	458	817	790	0.580	456	1.3	10.716	B
2 - A628 Cudworth Parkway	663	715	1055	0.628	660	1.6	9.036	A
3 - Barnsley Road	485	847	709	0.685	481	2.1	15.563	C
4 - A628 Pontefract Road	748	764	1093	0.685	744	2.1	10.216	B
5 - Burton Road	476	961	713	0.669	473	1.9	14.765	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	562	969	705	0.797	553	3.5	22.521	C
2 - A628 Cudworth Parkway	811	856	967	0.839	800	4.6	20.229	C
3 - Barnsley Road	595	1024	613	0.969	563	9.8	53.505	F
4 - A628 Pontefract Road	916	911	998	0.918	893	7.9	29.419	D
5 - Burton Road	584	1151	606	0.963	554	9.4	52.062	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	562	989	694	0.810	560	3.9	26.322	D
2 - A628 Cudworth Parkway	811	871	958	0.847	810	5.1	23.661	C
3 - Barnsley Road	595	1038	606	0.981	579	13.8	85.951	F
4 - A628 Pontefract Road	916	929	987	0.928	909	9.7	40.569	E
5 - Burton Road	584	1172	594	0.982	567	13.6	85.711	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	458	877	757	0.606	468	1.6	12.837	B
2 - A628 Cudworth Parkway	663	753	1032	0.642	675	1.8	10.441	B
3 - Barnsley Road	485	870	696	0.698	531	2.5	26.933	D
4 - A628 Pontefract Road	748	810	1063	0.703	777	2.5	13.718	B
5 - Burton Road	476	1008	686	0.694	521	2.4	26.805	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	384	697	858	0.448	387	0.8	7.699	A
2 - A628 Cudworth Parkway	555	608	1122	0.494	558	1.0	6.419	A
3 - Barnsley Road	407	717	778	0.522	412	1.1	9.970	A
4 - A628 Pontefract Road	626	650	1166	0.537	632	1.2	6.804	A
5 - Burton Road	399	816	794	0.503	405	1.0	9.374	A

2027 Weekday Factored, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	53.49	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-11	1 - West Green Way

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Weekday Factored	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	619	100.000
2 - A628 Cudworth Parkway		✓	579	100.000
3 - Barnsley Road		✓	508	100.000
4 - A628 Pontefract Road		✓	729	100.000
5 - Burton Road		✓	549	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	130	239	209	41
	2 - A628 Cudworth Parkway	111	0	3	287	178
	3 - Barnsley Road	156	1	0	117	234
	4 - A628 Pontefract Road	195	237	236	0	61
	5 - Burton Road	29	200	257	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	1.07	153.83	31.2	F
2 - A628 Cudworth Parkway	0.79	20.53	3.5	C
3 - Barnsley Road	0.86	36.73	5.3	E
4 - A628 Pontefract Road	0.75	13.04	2.8	B
5 - Burton Road	0.90	44.35	6.9	E

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	466	743	832	0.560	461	1.2	9.593	A
2 - A628 Cudworth Parkway	436	780	1015	0.430	433	0.7	6.156	A
3 - Barnsley Road	382	664	807	0.474	379	0.9	8.349	A
4 - A628 Pontefract Road	549	538	1237	0.444	546	0.8	5.181	A
5 - Burton Road	413	700	859	0.481	410	0.9	7.947	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	556	890	749	0.743	551	2.7	17.621	C
2 - A628 Cudworth Parkway	521	933	919	0.566	518	1.3	8.939	A
3 - Barnsley Road	457	794	737	0.620	454	1.6	12.607	B
4 - A628 Pontefract Road	655	645	1169	0.561	653	1.3	6.957	A
5 - Burton Road	494	838	781	0.632	491	1.7	12.248	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	682	1074	646	1.055	619	18.2	77.799	F
2 - A628 Cudworth Parkway	637	1090	820	0.777	630	3.2	18.190	C
3 - Barnsley Road	559	944	656	0.852	547	4.7	29.952	D
4 - A628 Pontefract Road	803	776	1085	0.740	797	2.7	12.264	B
5 - Burton Road	604	1020	680	0.889	587	5.9	34.108	D

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	682	1090	637	1.070	630	31.2	153.835	F
2 - A628 Cudworth Parkway	637	1107	810	0.787	636	3.5	20.529	C
3 - Barnsley Road	559	956	650	0.861	557	5.3	36.728	E
4 - A628 Pontefract Road	803	788	1077	0.745	802	2.8	13.039	B
5 - Burton Road	604	1029	675	0.896	600	6.9	44.350	E

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	556	917	734	0.758	666	3.7	77.408	F
2 - A628 Cudworth Parkway	521	1040	852	0.611	528	1.6	11.366	B
3 - Barnsley Road	457	853	705	0.648	470	1.9	16.145	C
4 - A628 Pontefract Road	655	670	1153	0.568	661	1.3	7.406	A
5 - Burton Road	494	853	774	0.638	514	1.8	14.873	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	466	753	826	0.564	476	1.3	10.540	B
2 - A628 Cudworth Parkway	436	797	1004	0.434	439	0.8	6.414	A
3 - Barnsley Road	382	677	800	0.478	386	0.9	8.790	A
4 - A628 Pontefract Road	549	548	1231	0.446	551	0.8	5.309	A
5 - Burton Road	413	708	854	0.484	417	1.0	8.291	A

2022 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	32.86	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	3 - Barnsley Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2022 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	498	100.000
2 - A628 Cudworth Parkway		✓	707	100.000
3 - Barnsley Road		✓	518	100.000
4 - A628 Pontefract Road		✓	801	100.000
5 - Burton Road		✓	509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	168	167	132	31
	2 - A628 Cudworth Parkway	161	0	4	290	252
	3 - Barnsley Road	135	4	0	143	236
	4 - A628 Pontefract Road	294	212	228	0	67
	5 - Burton Road	75	216	169	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.77	21.89	3.2	C
2 - A628 Cudworth Parkway	0.80	18.44	3.8	C
3 - Barnsley Road	0.91	53.52	7.9	F
4 - A628 Pontefract Road	0.88	26.97	6.2	D
5 - Burton Road	0.91	51.88	7.5	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	375	656	880	0.426	372	0.7	7.044	A
2 - A628 Cudworth Parkway	532	580	1140	0.467	529	0.9	5.855	A
3 - Barnsley Road	390	684	796	0.490	386	0.9	8.712	A
4 - A628 Pontefract Road	603	612	1190	0.507	599	1.0	6.048	A
5 - Burton Road	383	773	818	0.468	380	0.9	8.148	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	448	785	808	0.554	446	1.2	9.887	A
2 - A628 Cudworth Parkway	636	694	1068	0.595	633	1.4	8.228	A
3 - Barnsley Road	466	819	723	0.644	462	1.7	13.636	B
4 - A628 Pontefract Road	720	733	1113	0.647	717	1.8	9.027	A
5 - Burton Road	458	925	733	0.624	455	1.6	12.808	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	548	943	719	0.762	541	2.9	19.501	C
2 - A628 Cudworth Parkway	778	838	978	0.796	770	3.6	16.623	C
3 - Barnsley Road	570	995	629	0.906	551	6.5	39.221	E
4 - A628 Pontefract Road	882	883	1016	0.868	867	5.5	22.170	C
5 - Burton Road	560	1118	625	0.897	542	6.1	37.581	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	548	960	710	0.772	547	3.2	21.887	C
2 - A628 Cudworth Parkway	778	850	970	0.802	777	3.8	18.445	C
3 - Barnsley Road	570	1006	623	0.915	565	7.9	53.522	F
4 - A628 Pontefract Road	882	897	1007	0.876	879	6.2	26.969	D
5 - Burton Road	560	1134	616	0.910	555	7.5	51.883	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	448	818	789	0.567	455	1.3	10.997	B
2 - A628 Cudworth Parkway	636	717	1054	0.603	645	1.6	8.981	A
3 - Barnsley Road	466	836	714	0.652	489	2.0	17.542	C
4 - A628 Pontefract Road	720	759	1096	0.657	737	2.0	10.487	B
5 - Burton Road	458	954	717	0.638	480	1.8	16.553	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	375	666	874	0.429	377	0.8	7.275	A
2 - A628 Cudworth Parkway	532	588	1135	0.469	535	0.9	6.029	A
3 - Barnsley Road	390	693	791	0.493	394	1.0	9.144	A
4 - A628 Pontefract Road	603	621	1184	0.509	607	1.1	6.275	A
5 - Burton Road	383	783	812	0.472	387	0.9	8.536	A

2022 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	36.33	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	1 - West Green Way

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2022 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	599	100.000
2 - A628 Cudworth Parkway		✓	555	100.000
3 - Barnsley Road		✓	487	100.000
4 - A628 Pontefract Road		✓	708	100.000
5 - Burton Road		✓	528	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	125	229	205	40
	2 - A628 Cudworth Parkway	106	0	3	275	171
	3 - Barnsley Road	150	1	0	112	224
	4 - A628 Pontefract Road	195	228	227	0	58
	5 - Burton Road	28	193	246	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	1.00	95.31	17.4	F
2 - A628 Cudworth Parkway	0.75	17.08	2.8	C
3 - Barnsley Road	0.81	27.79	3.9	D
4 - A628 Pontefract Road	0.71	11.35	2.4	B
5 - Burton Road	0.84	31.00	4.7	D

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	451	715	847	0.532	447	1.1	8.886	A
2 - A628 Cudworth Parkway	418	752	1032	0.405	415	0.7	5.810	A
3 - Barnsley Road	367	641	819	0.448	363	0.8	7.850	A
4 - A628 Pontefract Road	533	517	1251	0.426	530	0.7	4.974	A
5 - Burton Road	398	679	871	0.456	394	0.8	7.499	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	538	856	768	0.701	534	2.2	15.093	C
2 - A628 Cudworth Parkway	499	901	939	0.531	497	1.1	8.117	A
3 - Barnsley Road	438	767	751	0.583	436	1.4	11.327	B
4 - A628 Pontefract Road	636	619	1185	0.537	635	1.1	6.519	A
5 - Burton Road	475	813	796	0.596	472	1.4	11.039	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	660	1039	666	0.990	621	11.9	56.364	F
2 - A628 Cudworth Parkway	611	1071	832	0.734	605	2.6	15.472	C
3 - Barnsley Road	536	922	668	0.802	527	3.6	24.125	C
4 - A628 Pontefract Road	780	750	1102	0.708	775	2.3	10.853	B
5 - Burton Road	581	990	696	0.835	570	4.3	26.410	D

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	660	1051	659	1.001	637	17.4	95.310	F
2 - A628 Cudworth Parkway	611	1091	819	0.746	610	2.8	17.085	C
3 - Barnsley Road	536	935	661	0.811	535	3.9	27.790	D
4 - A628 Pontefract Road	780	759	1096	0.711	779	2.4	11.348	B
5 - Burton Road	581	998	692	0.840	580	4.7	30.998	D

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	538	875	758	0.711	597	2.6	29.528	D
2 - A628 Cudworth Parkway	499	962	901	0.554	505	1.3	9.235	A
3 - Barnsley Road	438	803	732	0.598	447	1.5	13.038	B
4 - A628 Pontefract Road	636	636	1174	0.542	641	1.2	6.814	A
5 - Burton Road	475	824	790	0.601	487	1.6	12.376	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	451	724	842	0.535	457	1.2	9.474	A
2 - A628 Cudworth Parkway	418	766	1024	0.408	420	0.7	5.987	A
3 - Barnsley Road	367	651	814	0.451	369	0.8	8.155	A
4 - A628 Pontefract Road	533	525	1246	0.428	535	0.8	5.074	A
5 - Burton Road	398	686	867	0.458	400	0.9	7.756	A

2027 Weekday Peak + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	51.36	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	3 - Barnsley Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2027 Weekday Peak + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	518	100.000
2 - A628 Cudworth Parkway		✓	737	100.000
3 - Barnsley Road		✓	540	100.000
4 - A628 Pontefract Road		✓	835	100.000
5 - Burton Road		✓	530	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	175	173	137	33
	2 - A628 Cudworth Parkway	168	0	4	302	263
	3 - Barnsley Road	141	4	0	149	246
	4 - A628 Pontefract Road	306	221	238	0	70
	5 - Burton Road	78	225	176	51	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	0.82	27.92	4.2	D
2 - A628 Cudworth Parkway	0.85	24.43	5.2	C
3 - Barnsley Road	0.99	90.88	14.7	F
4 - A628 Pontefract Road	0.93	41.38	9.9	E
5 - Burton Road	0.98	87.17	13.8	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	390	683	865	0.451	387	0.8	7.478	A
2 - A628 Cudworth Parkway	555	603	1125	0.493	551	1.0	6.226	A
3 - Barnsley Road	407	713	780	0.521	402	1.1	9.421	A
4 - A628 Pontefract Road	629	638	1173	0.536	624	1.1	6.503	A
5 - Burton Road	399	805	800	0.499	395	1.0	8.837	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	466	817	790	0.589	463	1.4	10.941	B
2 - A628 Cudworth Parkway	663	722	1051	0.630	660	1.7	9.136	A
3 - Barnsley Road	485	854	705	0.689	481	2.1	15.809	C
4 - A628 Pontefract Road	751	764	1093	0.687	747	2.1	10.290	B
5 - Burton Road	476	964	711	0.670	473	1.9	14.851	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	570	968	705	0.809	561	3.7	23.580	C
2 - A628 Cudworth Parkway	811	864	962	0.843	799	4.7	20.730	C
3 - Barnsley Road	595	1032	609	0.976	562	10.3	55.484	F
4 - A628 Pontefract Road	919	910	999	0.920	896	8.0	29.811	D
5 - Burton Road	584	1154	605	0.965	553	9.5	52.634	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	570	988	694	0.822	568	4.2	27.917	D
2 - A628 Cudworth Parkway	811	879	953	0.852	809	5.2	24.433	C
3 - Barnsley Road	595	1046	602	0.988	577	14.7	90.884	F
4 - A628 Pontefract Road	919	927	988	0.931	912	9.9	41.377	E
5 - Burton Road	584	1175	593	0.984	566	13.8	87.166	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	466	878	756	0.616	476	1.7	13.283	B
2 - A628 Cudworth Parkway	663	761	1027	0.645	676	1.9	10.632	B
3 - Barnsley Road	485	879	692	0.702	534	2.5	28.866	D
4 - A628 Pontefract Road	751	812	1061	0.707	780	2.5	14.025	B
5 - Burton Road	476	1012	684	0.697	522	2.5	27.544	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	390	697	857	0.455	393	0.8	7.809	A
2 - A628 Cudworth Parkway	555	614	1118	0.496	558	1.0	6.466	A
3 - Barnsley Road	407	723	775	0.525	412	1.1	10.075	B
4 - A628 Pontefract Road	629	650	1166	0.539	634	1.2	6.836	A
5 - Burton Road	399	819	793	0.503	405	1.0	9.415	A

2027 Weekday Peak + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A628 Roundabout	Standard Roundabout	1, 2, 3, 4, 5	55.40	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	1 - West Green Way

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2027 Weekday Peak + Development	PM	ONE HOUR	15:45	17:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - West Green Way		✓	623	100.000
2 - A628 Cudworth Parkway		✓	579	100.000
3 - Barnsley Road		✓	508	100.000
4 - A628 Pontefract Road		✓	737	100.000
5 - Burton Road		✓	549	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	130	239	213	41
	2 - A628 Cudworth Parkway	111	0	3	287	178
	3 - Barnsley Road	156	1	0	117	234
	4 - A628 Pontefract Road	203	237	236	0	61
	5 - Burton Road	29	200	257	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - West Green Way	2 - A628 Cudworth Parkway	3 - Barnsley Road	4 - A628 Pontefract Road	5 - Burton Road
From	1 - West Green Way	0	0	0	0	0
	2 - A628 Cudworth Parkway	0	0	0	0	0
	3 - Barnsley Road	0	0	0	0	0
	4 - A628 Pontefract Road	0	0	0	0	0
	5 - Burton Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - West Green Way	1.08	159.94	32.8	F
2 - A628 Cudworth Parkway	0.79	20.62	3.5	C
3 - Barnsley Road	0.86	37.23	5.4	E
4 - A628 Pontefract Road	0.75	13.45	2.9	B
5 - Burton Road	0.90	46.60	7.3	E

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	469	743	832	0.564	464	1.3	9.666	A
2 - A628 Cudworth Parkway	436	783	1013	0.430	433	0.7	6.176	A
3 - Barnsley Road	382	667	805	0.475	379	0.9	8.379	A
4 - A628 Pontefract Road	555	538	1237	0.448	552	0.8	5.227	A
5 - Burton Road	413	706	856	0.483	410	0.9	8.006	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	560	889	749	0.747	554	2.7	17.903	C
2 - A628 Cudworth Parkway	521	936	917	0.568	518	1.3	8.985	A
3 - Barnsley Road	457	798	735	0.621	454	1.6	12.686	B
4 - A628 Pontefract Road	663	645	1169	0.567	661	1.3	7.052	A
5 - Burton Road	494	846	777	0.635	491	1.7	12.412	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	686	1073	646	1.061	621	18.9	79.923	F
2 - A628 Cudworth Parkway	637	1091	819	0.778	630	3.2	18.281	C
3 - Barnsley Road	559	947	655	0.854	547	4.8	30.276	D
4 - A628 Pontefract Road	811	776	1085	0.748	805	2.8	12.609	B
5 - Burton Road	604	1028	675	0.896	587	6.2	35.284	E

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	686	1090	637	1.076	631	32.8	159.941	F
2 - A628 Cudworth Parkway	637	1108	809	0.788	636	3.5	20.624	C
3 - Barnsley Road	559	959	648	0.863	557	5.4	37.226	E
4 - A628 Pontefract Road	811	788	1077	0.753	811	2.9	13.452	B
5 - Burton Road	604	1038	670	0.903	600	7.3	46.597	E

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	560	918	733	0.764	675	3.9	85.303	F
2 - A628 Cudworth Parkway	521	1049	846	0.615	528	1.6	11.569	B
3 - Barnsley Road	457	860	702	0.651	471	1.9	16.417	C
4 - A628 Pontefract Road	663	670	1153	0.575	669	1.4	7.532	A
5 - Burton Road	494	860	769	0.642	515	1.9	15.280	C

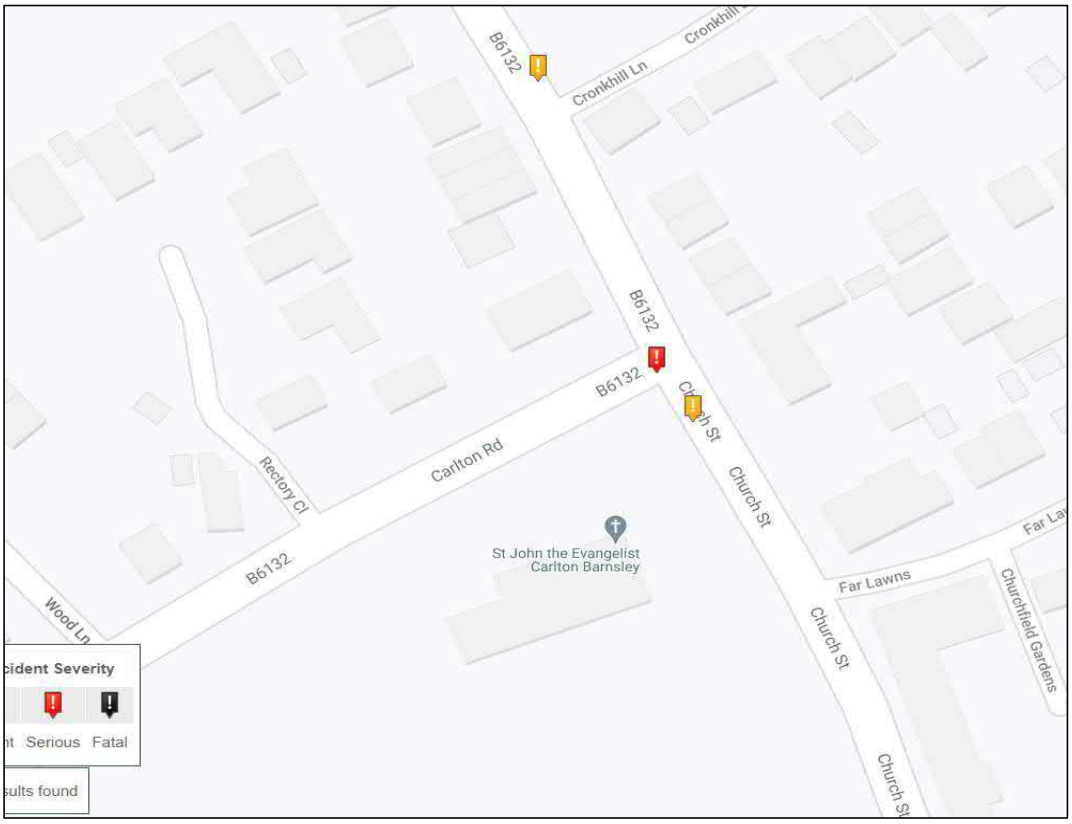
17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - West Green Way	469	753	826	0.568	479	1.3	10.682	B
2 - A628 Cudworth Parkway	436	801	1002	0.435	439	0.8	6.442	A
3 - Barnsley Road	382	680	798	0.479	386	0.9	8.836	A
4 - A628 Pontefract Road	555	548	1231	0.451	557	0.8	5.359	A
5 - Burton Road	413	715	851	0.486	417	1.0	8.362	A

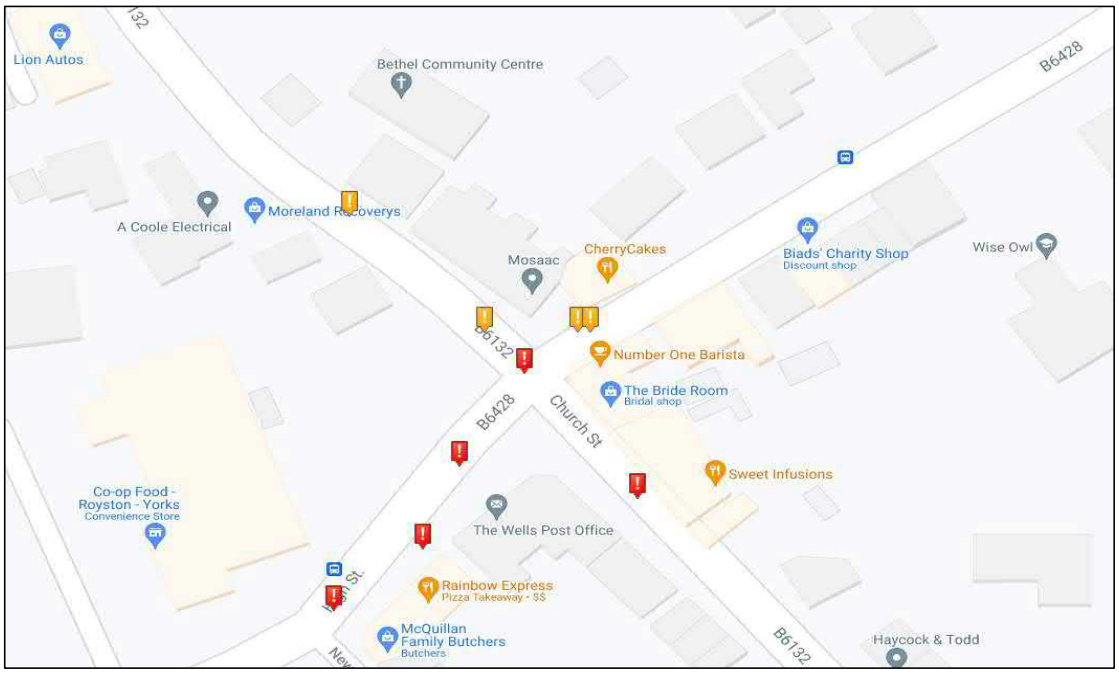
Junction E – Crashmap Data

Junction 1

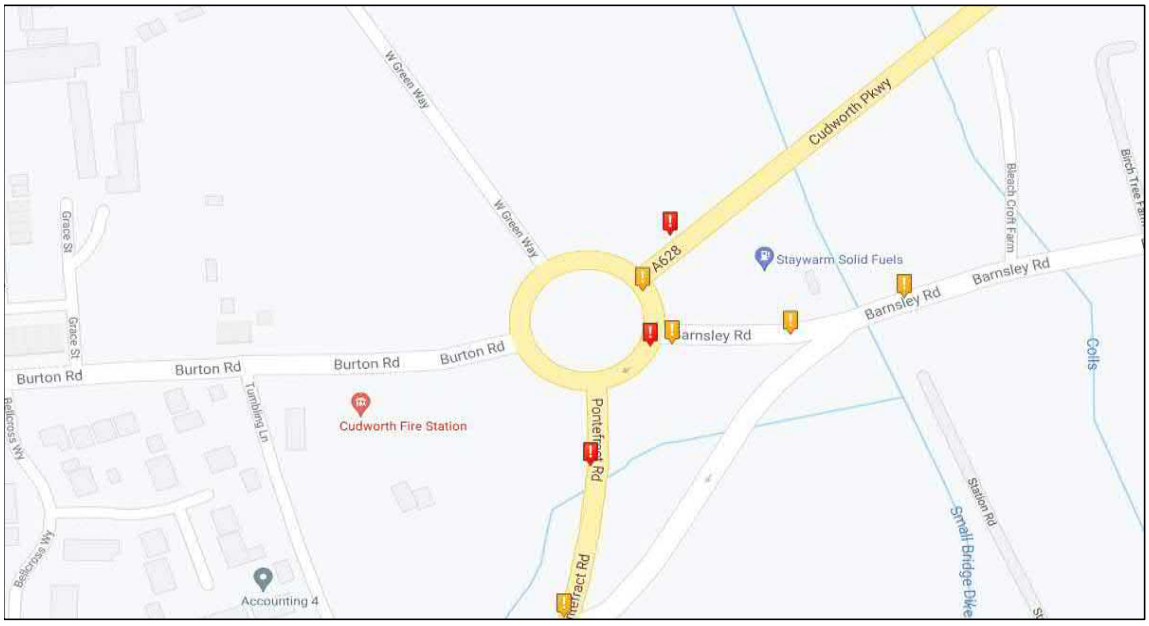
Junction 2



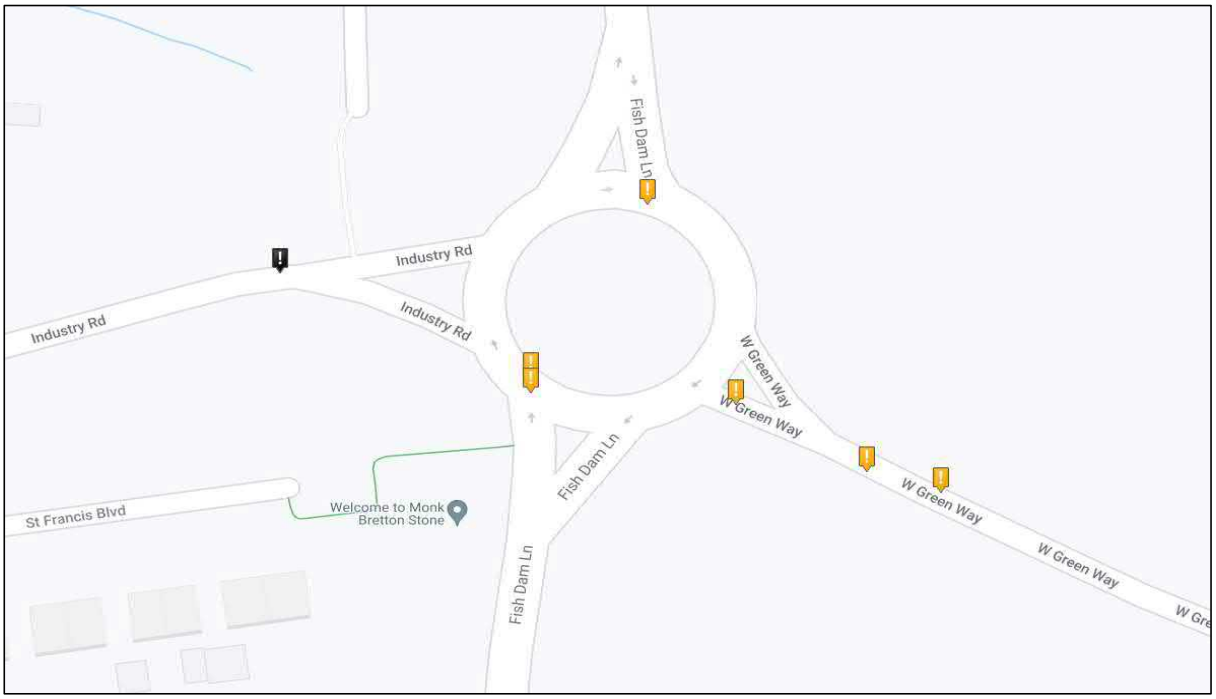
Junction 3



Junction 4



Junction 5


Fish Dam Ln
Industry Rd
Industry Rd
Industry Rd
W Green Way
W Green Way
W Green Way
W Green Way
St Francis Blvd
Welcome to Monk Bretton Stone
Fish Dam Ln
Fish Dam Ln

Junction Number	Year	Severity	Casulaty Type
1	2017	Fatal	Pedal Cyclist
1	2017	Slight	
2	2020	Slight	
2	2020	Slight	Pedal Cyclist
3	2016	Serious	Pedestrian
3	2017	Serious	Pedestrian
3	2017	Serious	Pedestrian
3	2017	Serious	Pedestrian
3	2018	Serious	
3	2018	Slight	
3	2019	Slight	
3	2019	Slight	
3	2019	Slight	
4	2018	Fatal	
4	2017	Slight	Pedal Cyclist
4	2017	Slight	
4	2016	Slight	
4	2020	Slight	
4	2020	Slight	
4	2018	Slight	
5	2019	Slight	Motorcycle
5	2019	Slight	
5	2019	Serious	Pedal Cyclist
5	2017	Slight	
5	2016	Slight	
5	2020	Slight	
5	2018	Serious	
5	2016	Slight	

Appendix F – Site Masterplan

Illustrative Masterplan

Client Name:	Network Space	Scale:	1:1000 @A2 (approx.)
Project No:	P3921	Discipline:	Masterplanning
Title:	Shaw Lane, Carlton	Date:	25 January 2022
Drawn By:	DK	Drg No:	P3921-SPa-XX-ZZ-00-M2-10-005
Checked By:	EH	Revision:	*

Shaw Lane, Carlton
Planning

network space

spawforths

Appendix G – Site Access Drawings

NOTES:

1. THIS DRAWING SHOULD BE READ IN RELATION TO THE SUBJECT OF THE TITLE ONLY. OTHER INFORMATION SHOWN ON THE DRAWING IS TO BE CONSIDERED INDICATIVE ONLY. REFERENCE SHOULD BE MADE TO APPROPRIATE DRAWING SERIES / SPECIFICATIONS FOR OTHER INFORMATION
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE

KEY

BASED ON MFS STANDARDS, THE REQUIRED VISIBILITY SPLAYS ARE:

- EASTBOUND = 2.4 x 66m VISIBILITY SPLAY BASED ON 85th % SPEED OF 41.5 Mph
- WESTBOUND = 2.4 x 58m BASED ON 85th % SPEED OF 38.5 Mph
- HIGHWAY BOUNDARY

LOCATION PLAN
SCALE 1:10000

Rev	Date	Revision Details	Drn	Des	Chk	App
P02	17/11/2021	Revised junction position to tie with Master Plan	PB	PB	JG	RE

Client: network space

Project: SHAW LANE, BARNSLEY

Drawing Title: POTENTIAL SITE ACCESS LOCATION

Pell Frischmann
9 ACORN BUSINESS PARK, STOCKPORT, SK4 1AS
Telephone +44 (0)7548 273 897
Email: pfmanchester@pellfrischmann.com
www.pellfrischmann.com

Scale	Drawn	Designed	Checked	Approved
1:1000	C.RABBETT	C.EBBRELL	A.HALL	M.DAVIES
Original Drawing Size	Date	Date	Date	Date
A3	04.01.2019	04.01.2019	07.01.2019	07.01.2019

Drawing Status: PRELIMINARY

Drawing Number									Revision
102107	PF	HGN	01	DR	CH	0001			P02
Project	Originator	Volume	Location	Type	Role	Number			

Appendix H – TRICS Outputs

Calculation Reference: AUDIT-610801-181029-1015

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	KC	KENT	2 days
	WS	WEST SUSSEX	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
13	MUNSTER		
	WA	WATERFORD	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	2 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 204 to 805 (units:)
Range Selected by User: 200 to 900 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 22/11/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	3 days
Thursday	1 days
Saturday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	9
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	10 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	4 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	4 days
75,001 to 100,000	3 days
125,001 to 250,000	1 days
500,001 or More	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	9 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	9 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AN-03-A-08 HOUSES & FLATS ANTRIM
BALLINDERRY ROAD
LISBURN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 204
Survey date: TUESDAY *29/10/13* *Survey Type: MANUAL*

2 DL-03-A-03 TERRACED/SEMI-DET. DUBLIN
RAHENY ROAD
DUBLIN
RAHENY
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 206
Survey date: TUESDAY *20/04/10* *Survey Type: MANUAL*

3 DL-03-A-05 MIXED HOUSES DUBLIN
UPPER KILMACUD ROAD
DUBLIN
DUNDRUM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 234
Survey date: SATURDAY *01/05/10* *Survey Type: MANUAL*

4 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total Number of dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

5 KC-03-A-06 MIXED HOUSES & FLATS KENT
MARGATE ROAD
HERNE BAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 363
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

6 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total Number of dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

7 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK
SCUNTHORPE

Edge of Town
No Sub Category
Total Number of dwellings: 432
Survey date: MONDAY *12/05/14* *Survey Type: MANUAL*

8 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total Number of dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	WA-03-A-04 MAYPARK LANE WATERFORD	DETACHED		WATERFORD
	Edge of Town Residential Zone Total Number of dwellings:		280	
	Survey date: TUESDAY		*24/06/14*	*Survey Type: MANUAL*
10	WS-03-A-06 ELLIS ROAD WEST HORSHAM S BROADBRIDGE HEATH	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings:		805	
	Survey date: THURSDAY		*02/03/17*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	327	0.071	10	327	0.266	10	327	0.337
08:00 - 09:00	10	327	0.128	10	327	0.382	10	327	0.510
09:00 - 10:00	10	327	0.141	10	327	0.175	10	327	0.316
10:00 - 11:00	10	327	0.121	10	327	0.159	10	327	0.280
11:00 - 12:00	10	327	0.138	10	327	0.165	10	327	0.303
12:00 - 13:00	10	327	0.184	10	327	0.173	10	327	0.357
13:00 - 14:00	10	327	0.169	10	327	0.171	10	327	0.340
14:00 - 15:00	10	327	0.203	10	327	0.203	10	327	0.406
15:00 - 16:00	10	327	0.276	10	327	0.189	10	327	0.465
16:00 - 17:00	10	327	0.284	10	327	0.175	10	327	0.459
17:00 - 18:00	10	327	0.367	10	327	0.189	10	327	0.556
18:00 - 19:00	10	327	0.320	10	327	0.213	10	327	0.533
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.402			2.460			4.862

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

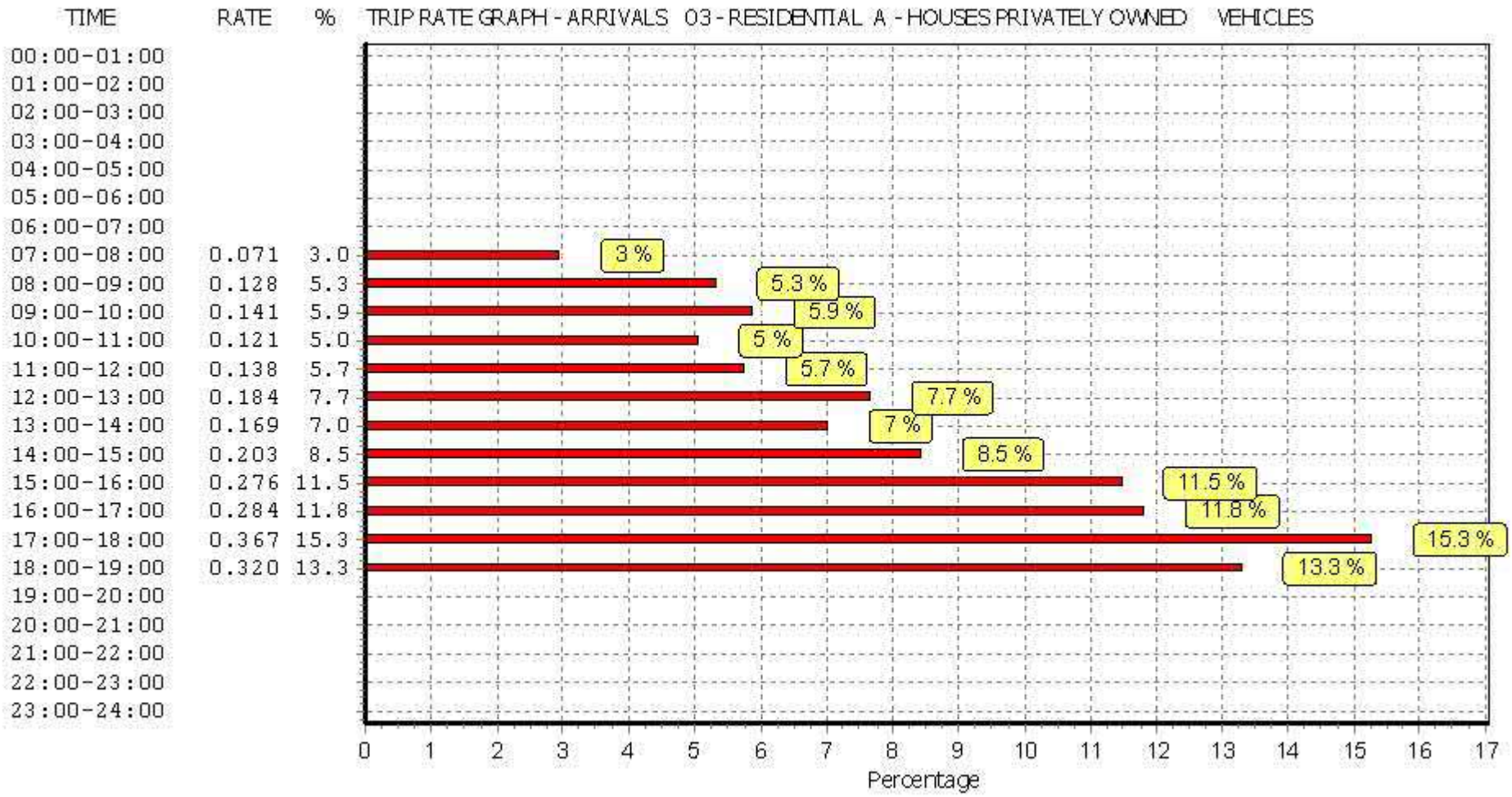
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	204 - 805 (units:)
Survey date date range:	01/01/10 - 22/11/17
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

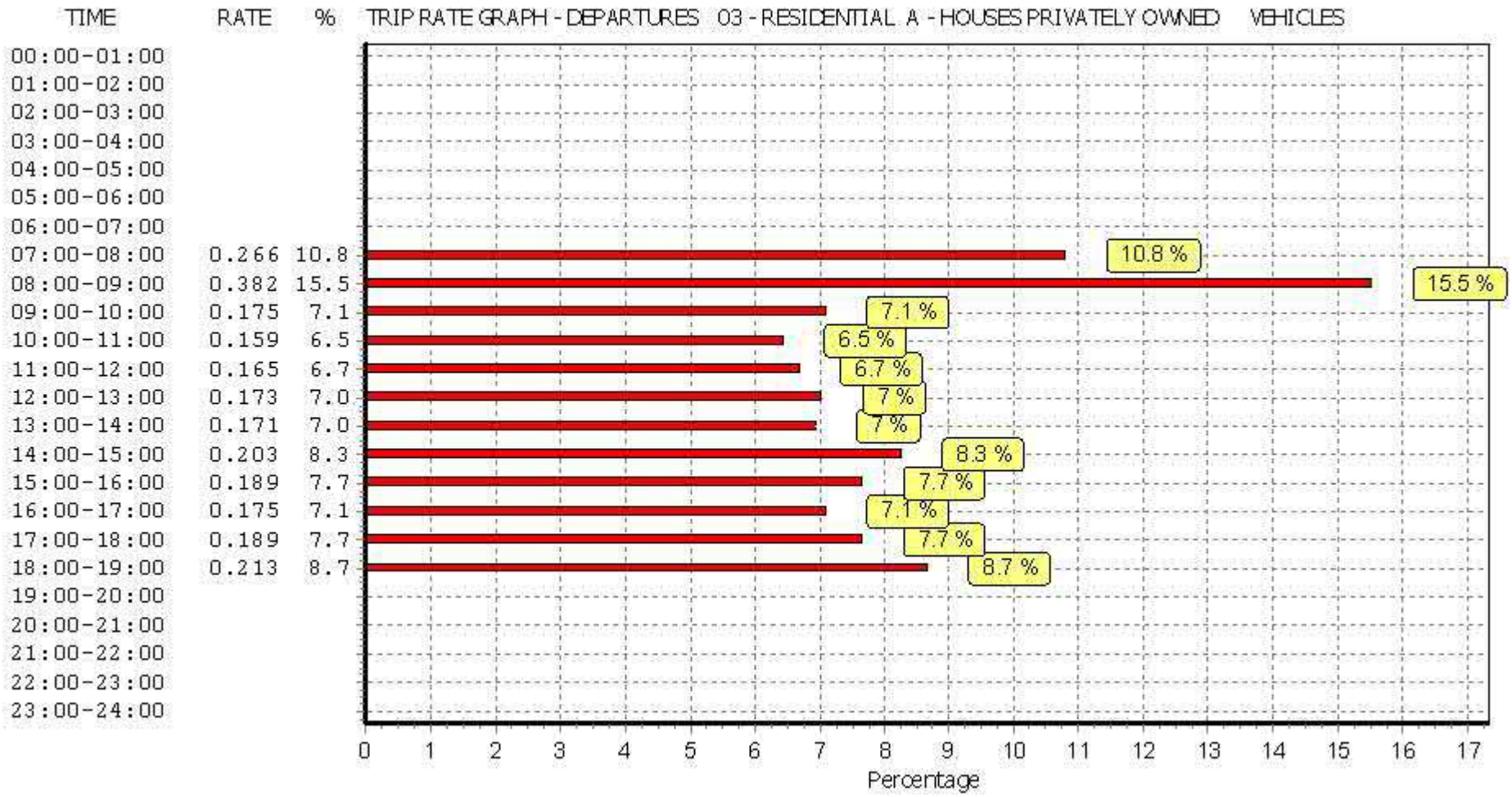
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Pell Frischmann George Street Wakefield Licence No: 610801



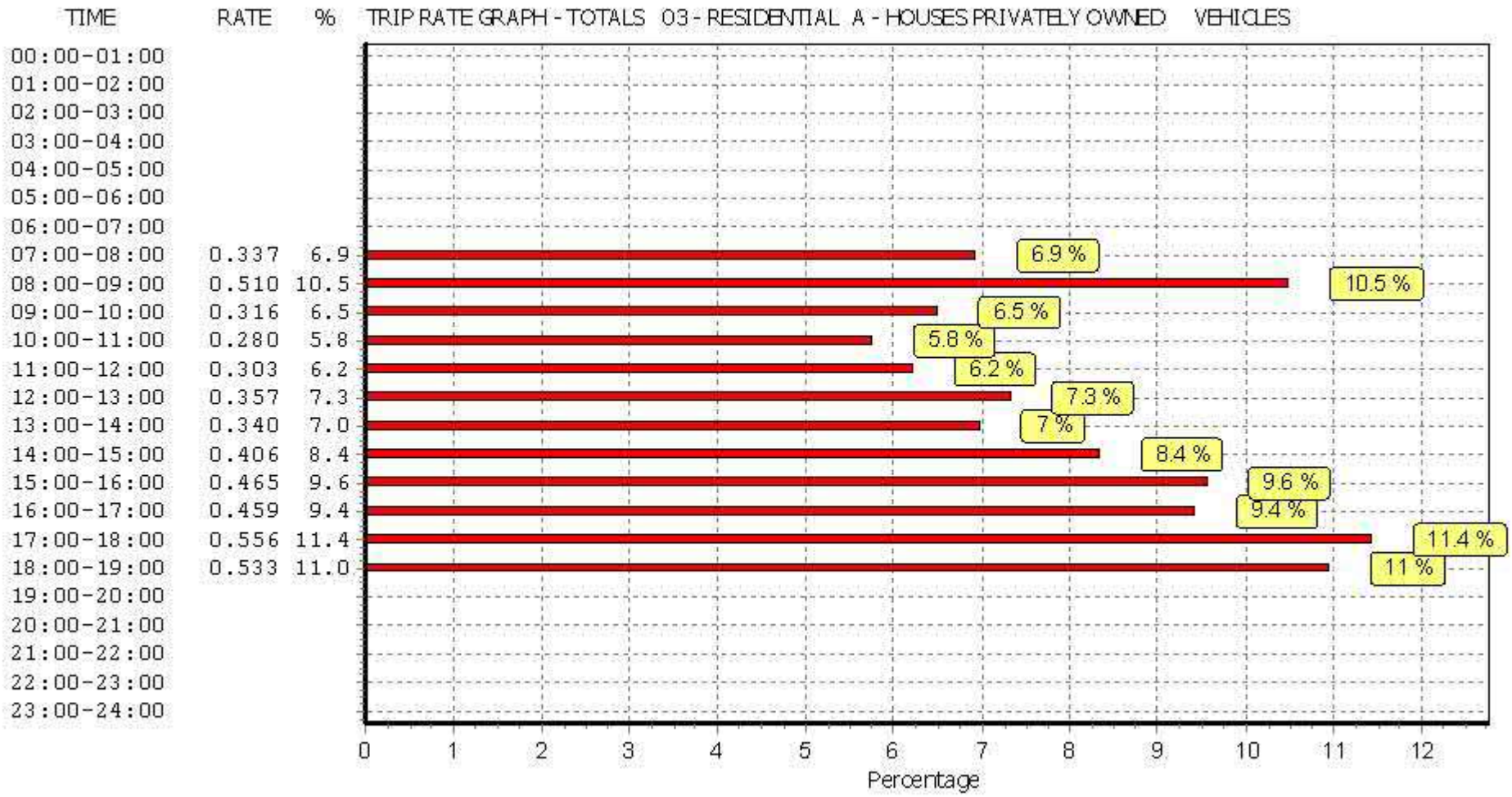
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

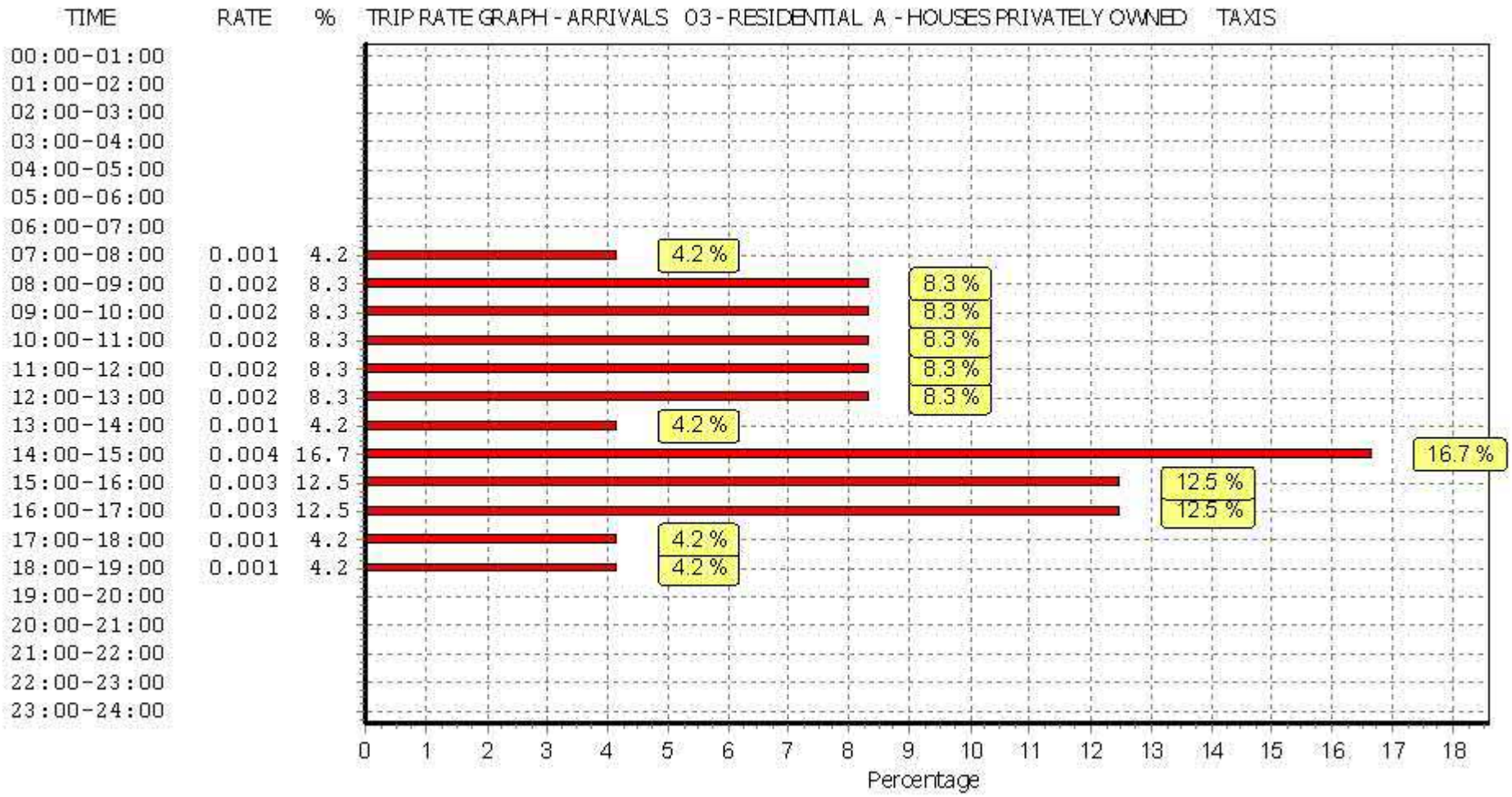
TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	327	0.001	10	327	0.001	10	327	0.002
08:00 - 09:00	10	327	0.002	10	327	0.001	10	327	0.003
09:00 - 10:00	10	327	0.002	10	327	0.001	10	327	0.003
10:00 - 11:00	10	327	0.002	10	327	0.003	10	327	0.005
11:00 - 12:00	10	327	0.002	10	327	0.002	10	327	0.004
12:00 - 13:00	10	327	0.002	10	327	0.002	10	327	0.004
13:00 - 14:00	10	327	0.001	10	327	0.001	10	327	0.002
14:00 - 15:00	10	327	0.004	10	327	0.004	10	327	0.008
15:00 - 16:00	10	327	0.003	10	327	0.002	10	327	0.005
16:00 - 17:00	10	327	0.003	10	327	0.003	10	327	0.006
17:00 - 18:00	10	327	0.001	10	327	0.001	10	327	0.002
18:00 - 19:00	10	327	0.001	10	327	0.001	10	327	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.022			0.046

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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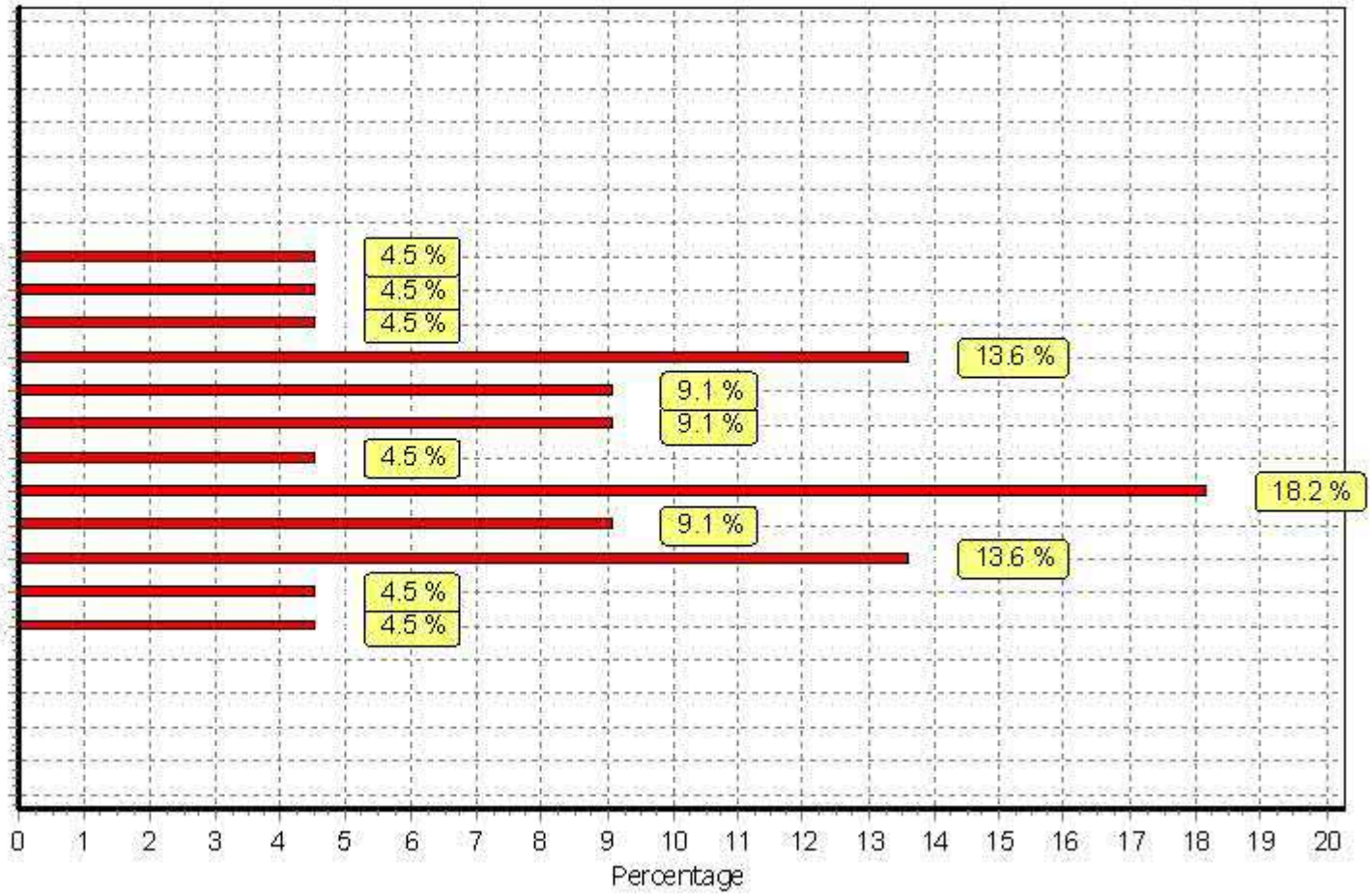
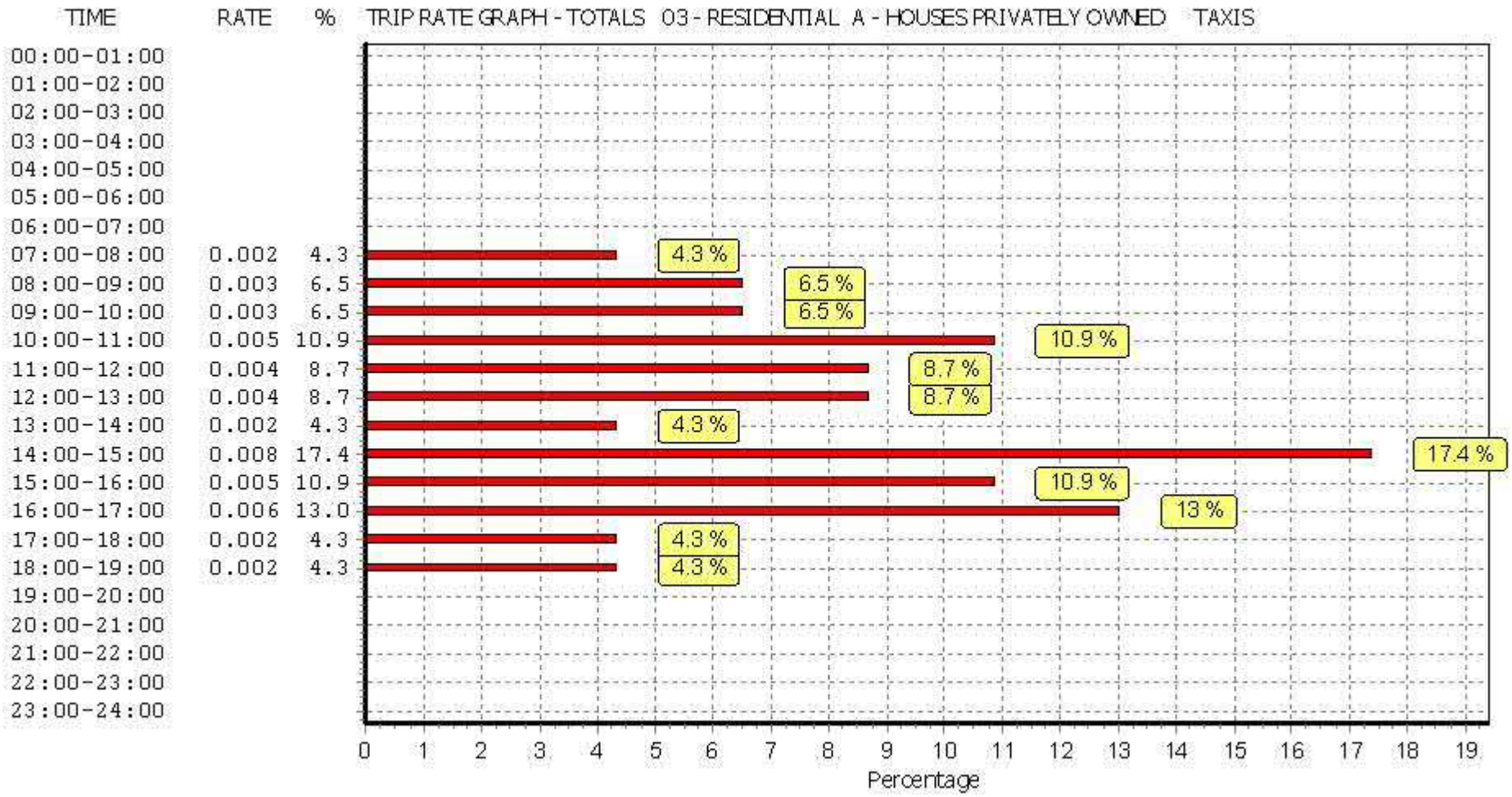
TRIP RATE GRAPH - DEPARTURES 03 - RESIDENTIAL A - HOUSES PRIVATELY OWNED TAXIS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.001	4.5
08:00-09:00	0.001	4.5
09:00-10:00	0.001	4.5
10:00-11:00	0.003	13.6
11:00-12:00	0.002	9.1
12:00-13:00	0.002	9.1
13:00-14:00	0.001	4.5
14:00-15:00	0.004	18.2
15:00-16:00	0.002	9.1
16:00-17:00	0.003	13.6
17:00-18:00	0.001	4.5
18:00-19:00	0.001	4.5
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

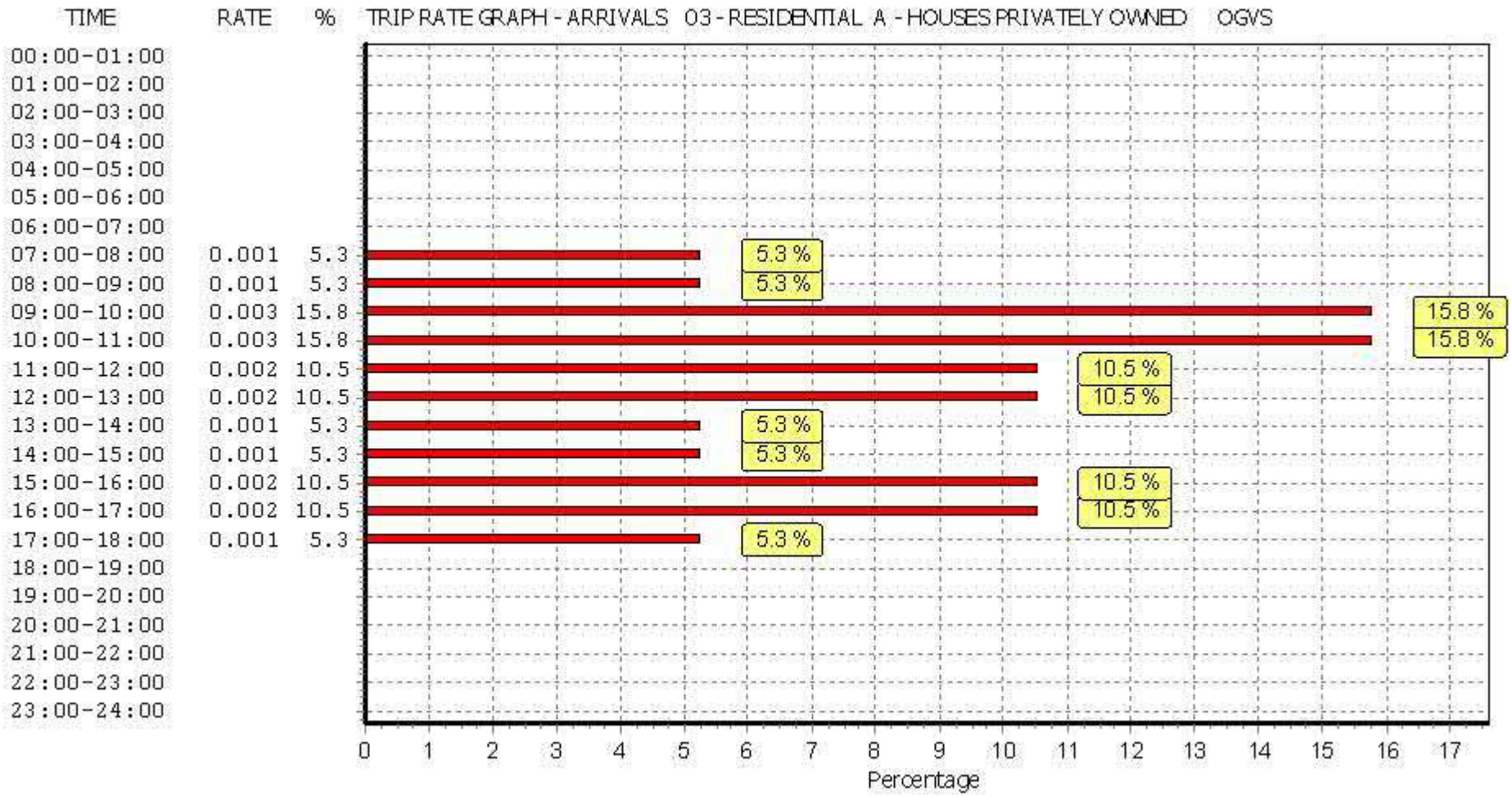
TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	327	0.001	10	327	0.000	10	327	0.001
08:00 - 09:00	10	327	0.001	10	327	0.002	10	327	0.003
09:00 - 10:00	10	327	0.003	10	327	0.002	10	327	0.005
10:00 - 11:00	10	327	0.003	10	327	0.004	10	327	0.007
11:00 - 12:00	10	327	0.002	10	327	0.002	10	327	0.004
12:00 - 13:00	10	327	0.002	10	327	0.003	10	327	0.005
13:00 - 14:00	10	327	0.001	10	327	0.001	10	327	0.002
14:00 - 15:00	10	327	0.001	10	327	0.002	10	327	0.003
15:00 - 16:00	10	327	0.002	10	327	0.002	10	327	0.004
16:00 - 17:00	10	327	0.002	10	327	0.001	10	327	0.003
17:00 - 18:00	10	327	0.001	10	327	0.001	10	327	0.002
18:00 - 19:00	10	327	0.000	10	327	0.000	10	327	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.019			0.020			0.039

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

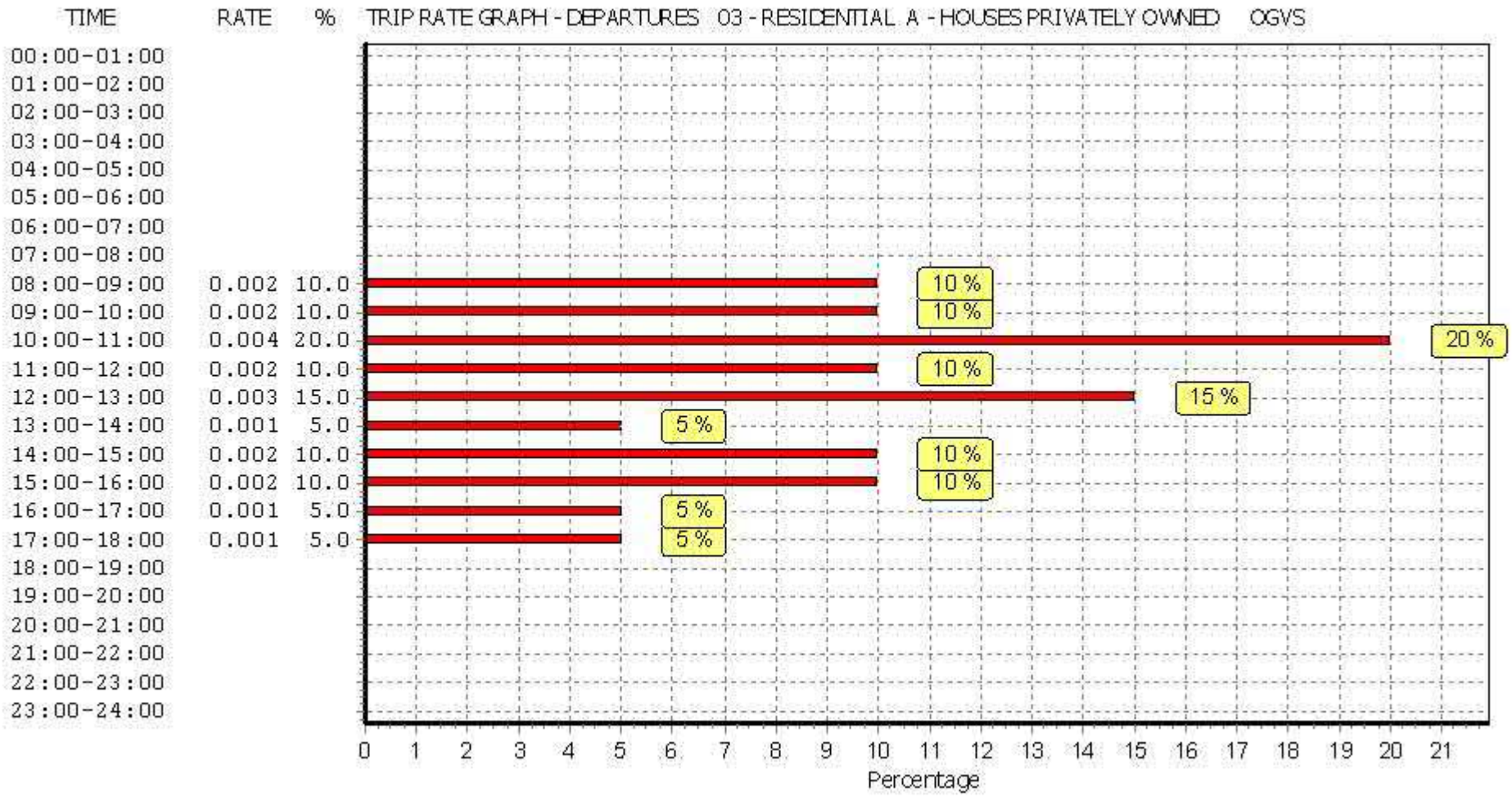
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Pell Frischmann George Street Wakefield Licence No: 610801



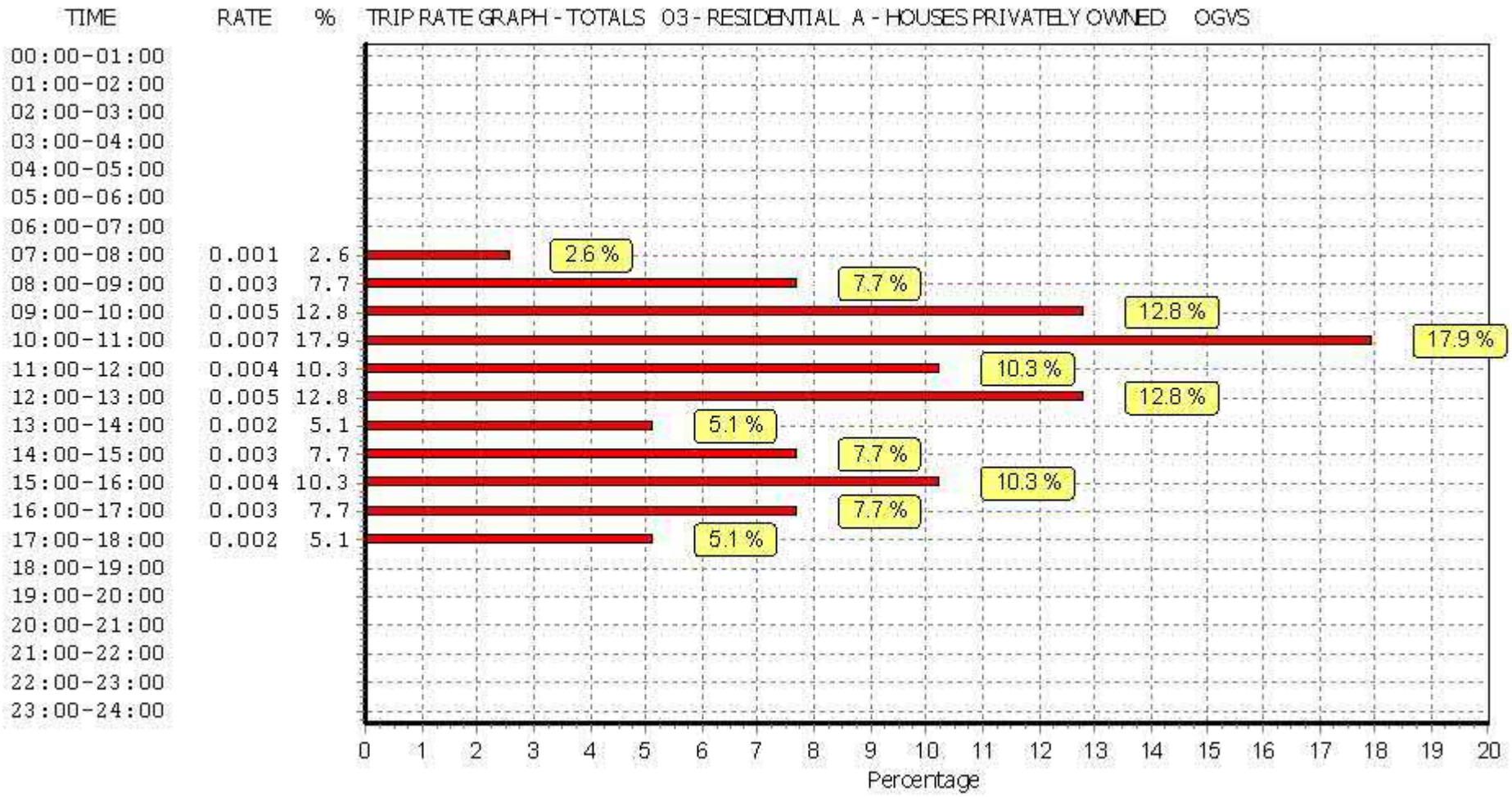
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



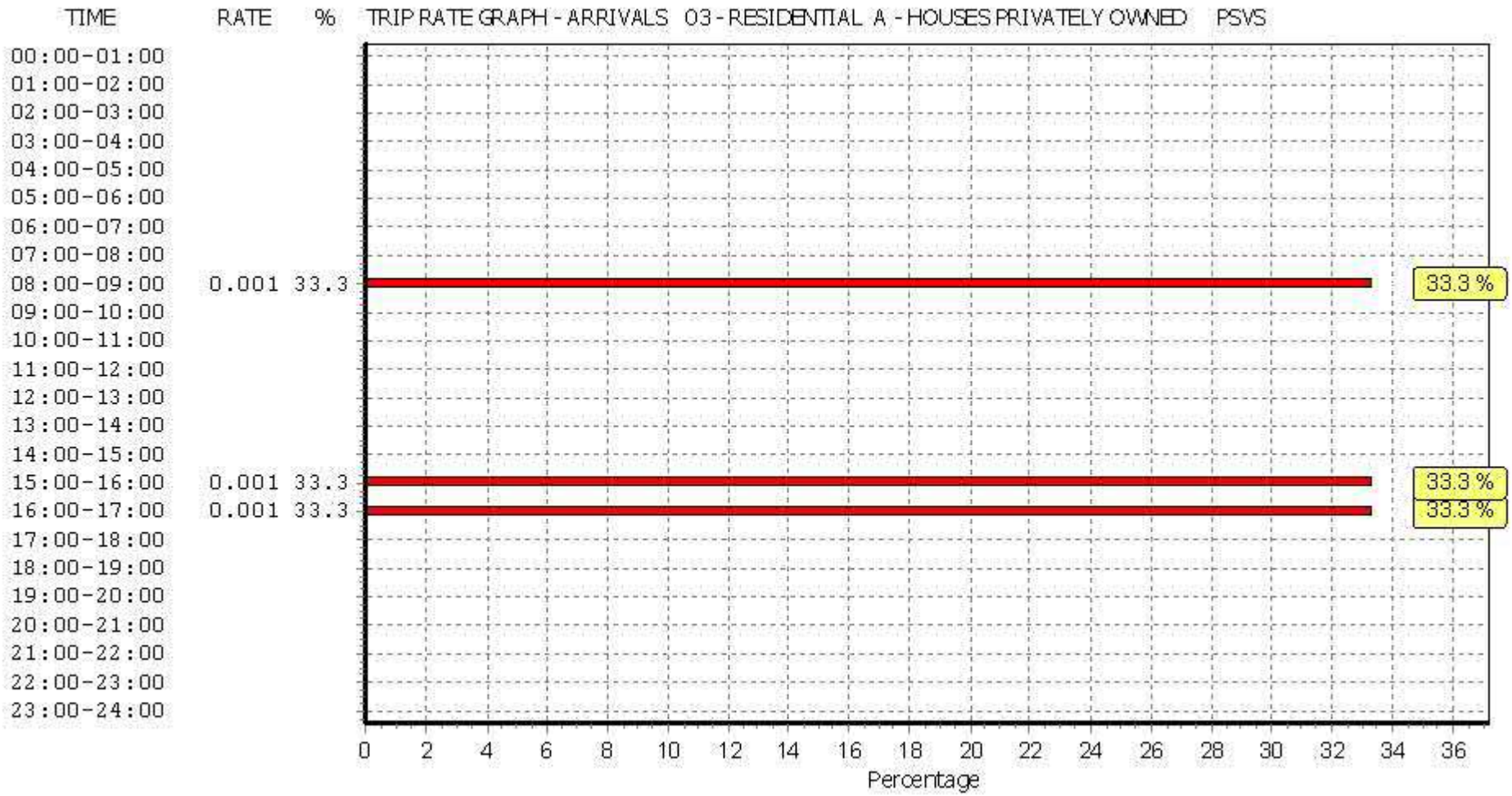
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	327	0.000	10	327	0.000	10	327	0.000
08:00 - 09:00	10	327	0.001	10	327	0.001	10	327	0.002
09:00 - 10:00	10	327	0.000	10	327	0.000	10	327	0.000
10:00 - 11:00	10	327	0.000	10	327	0.000	10	327	0.000
11:00 - 12:00	10	327	0.000	10	327	0.000	10	327	0.000
12:00 - 13:00	10	327	0.000	10	327	0.000	10	327	0.000
13:00 - 14:00	10	327	0.000	10	327	0.000	10	327	0.000
14:00 - 15:00	10	327	0.000	10	327	0.000	10	327	0.000
15:00 - 16:00	10	327	0.001	10	327	0.001	10	327	0.002
16:00 - 17:00	10	327	0.001	10	327	0.001	10	327	0.002
17:00 - 18:00	10	327	0.000	10	327	0.000	10	327	0.000
18:00 - 19:00	10	327	0.000	10	327	0.000	10	327	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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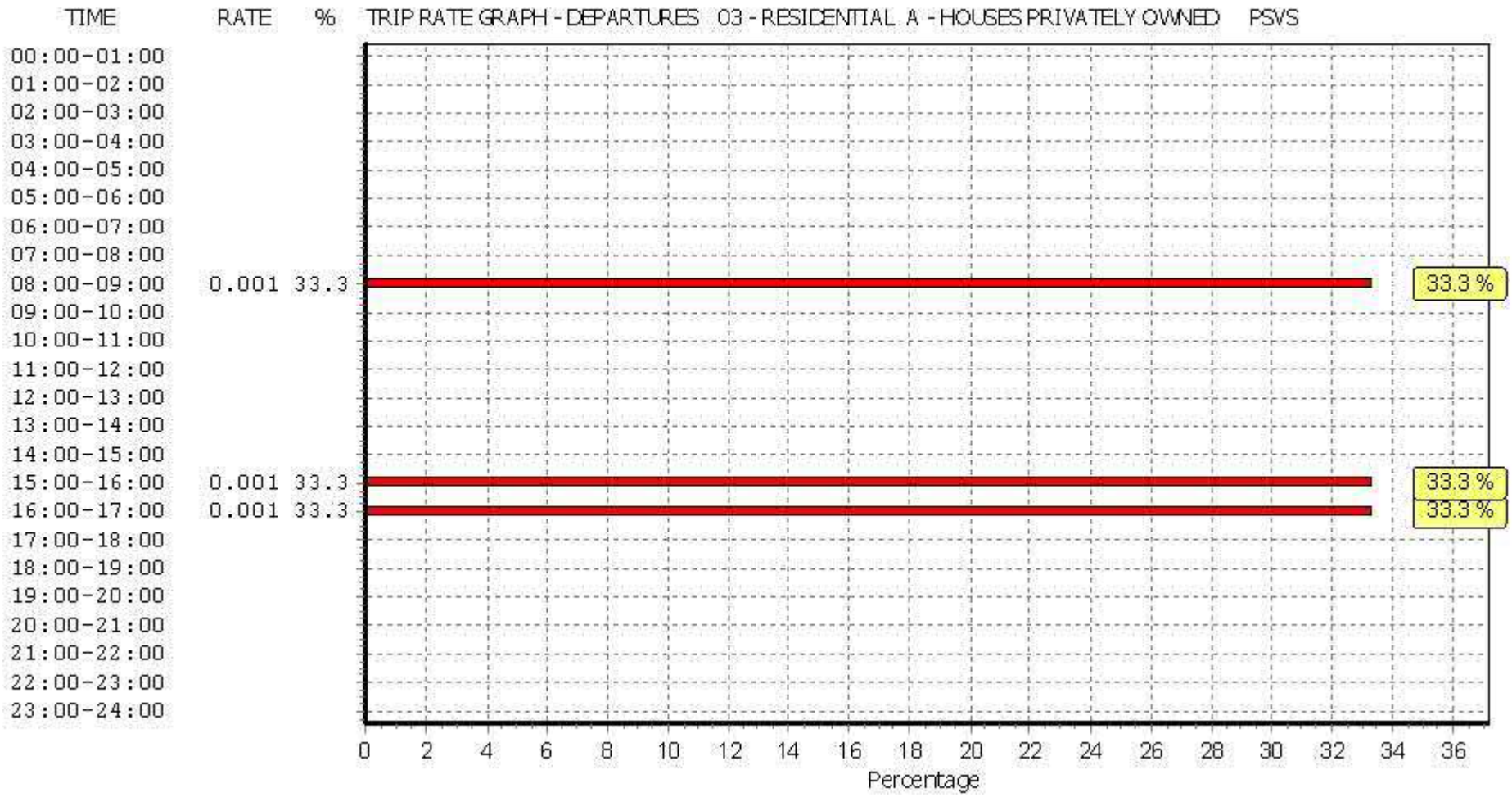
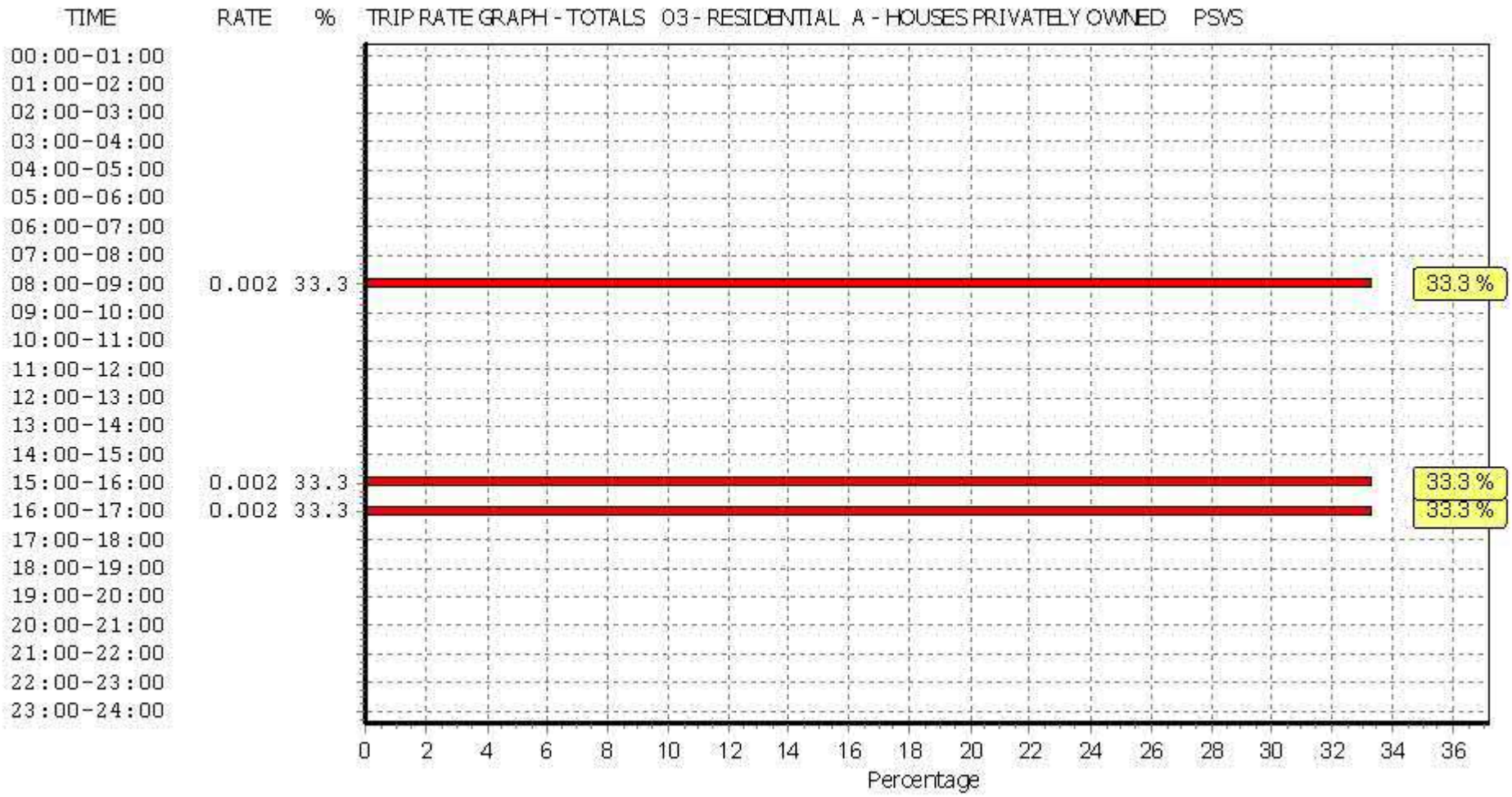


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	327	0.002	10	327	0.005	10	327	0.007
08:00 - 09:00	10	327	0.001	10	327	0.008	10	327	0.009
09:00 - 10:00	10	327	0.002	10	327	0.002	10	327	0.004
10:00 - 11:00	10	327	0.001	10	327	0.002	10	327	0.003
11:00 - 12:00	10	327	0.002	10	327	0.001	10	327	0.003
12:00 - 13:00	10	327	0.001	10	327	0.002	10	327	0.003
13:00 - 14:00	10	327	0.002	10	327	0.004	10	327	0.006
14:00 - 15:00	10	327	0.002	10	327	0.002	10	327	0.004
15:00 - 16:00	10	327	0.004	10	327	0.004	10	327	0.008
16:00 - 17:00	10	327	0.007	10	327	0.006	10	327	0.013
17:00 - 18:00	10	327	0.007	10	327	0.006	10	327	0.013
18:00 - 19:00	10	327	0.005	10	327	0.003	10	327	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.045			0.081

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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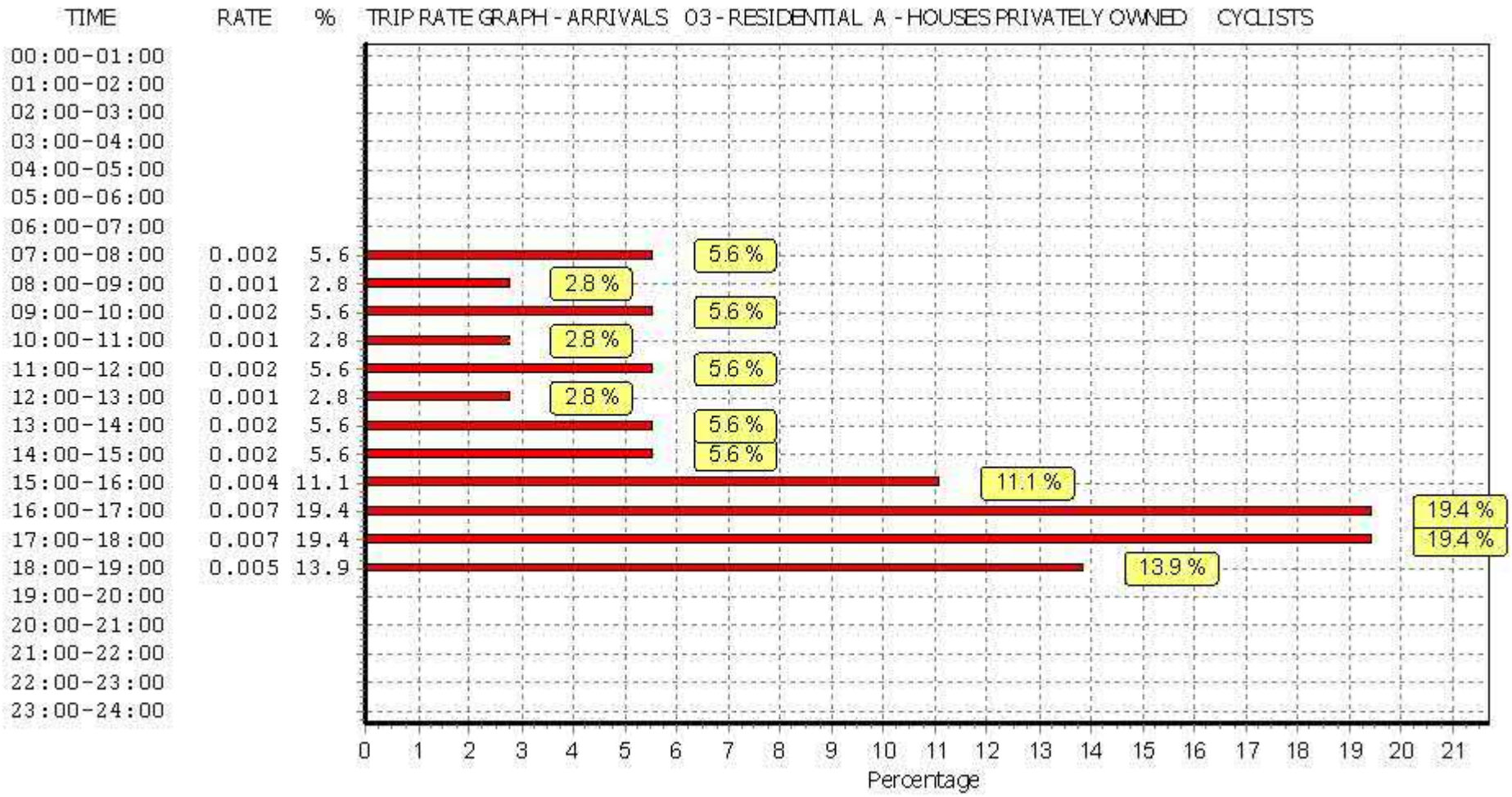
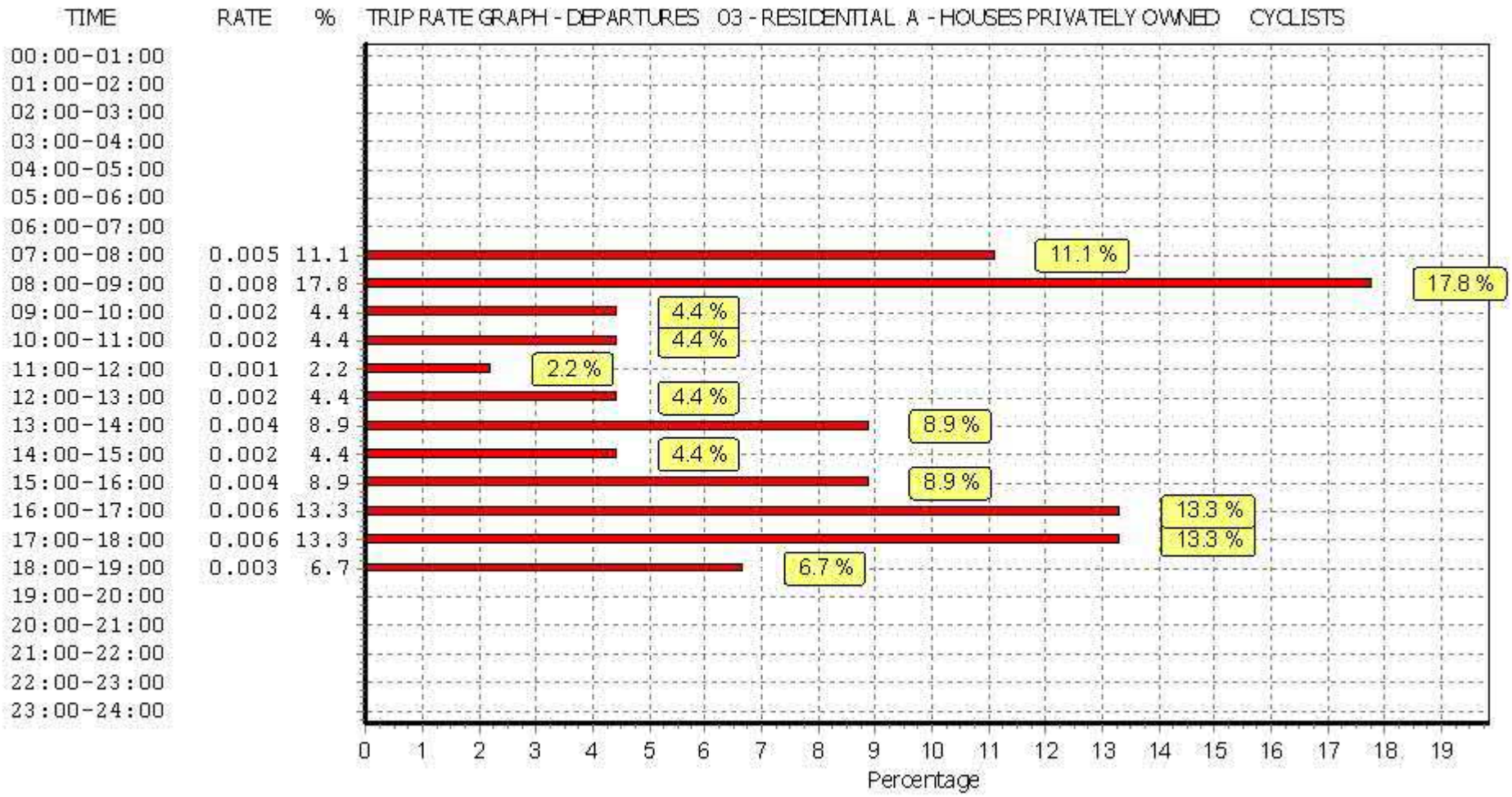
Pell Frischmann George Street Wakefield Licence No: 610801



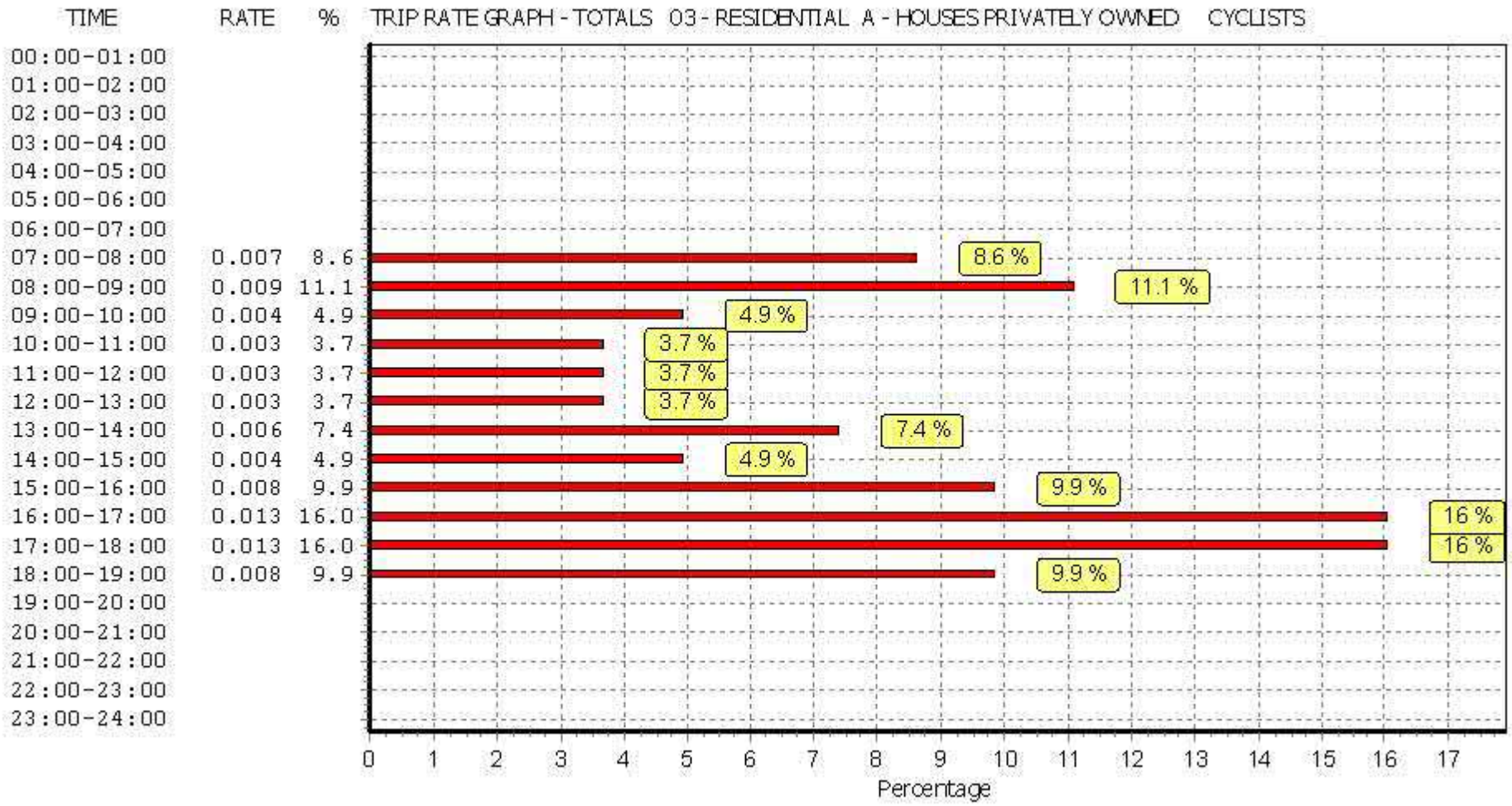
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



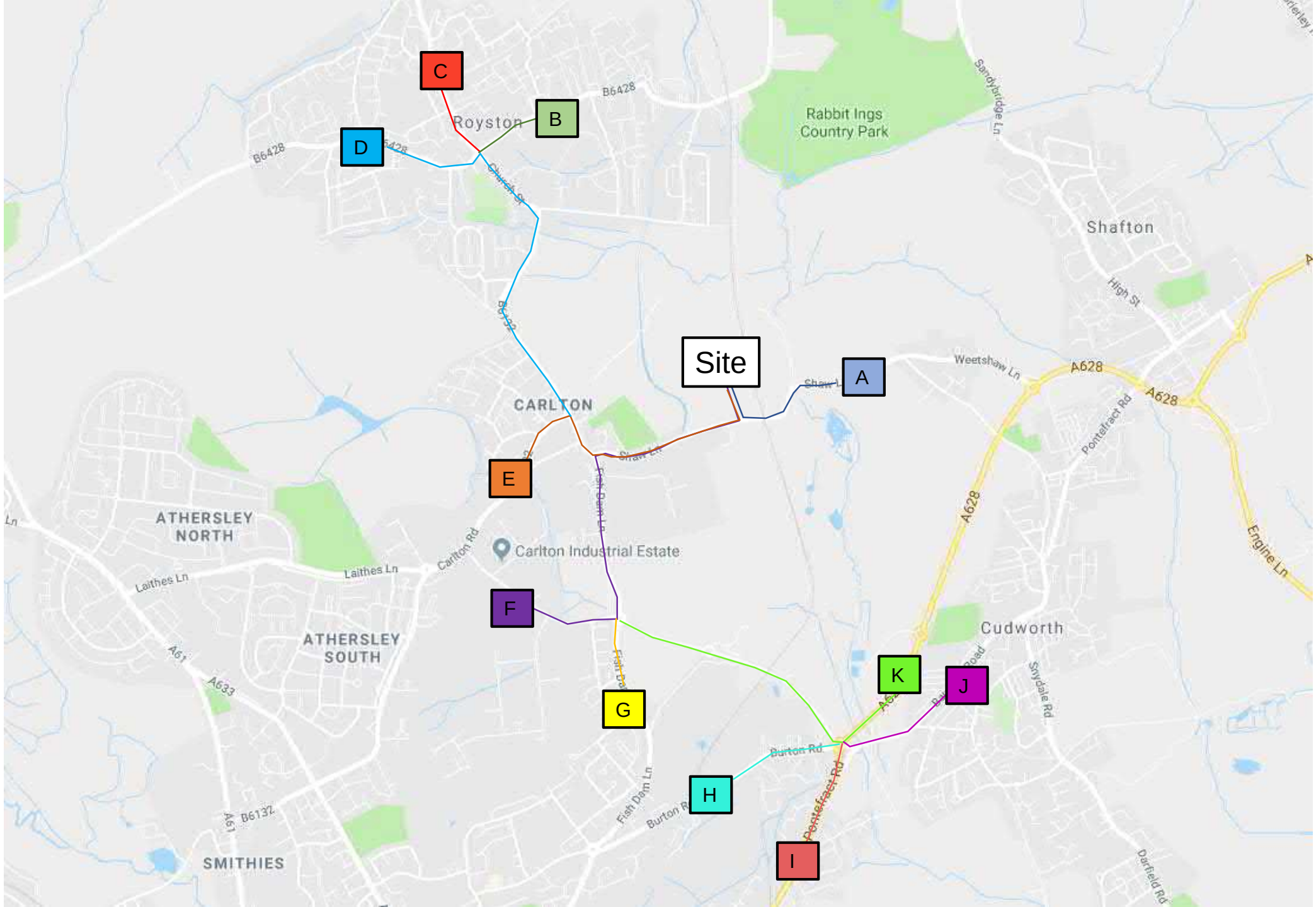
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Pell Frischmann George Street Wakefield Licence No: 610801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Appendix I – Distribution Calculations


C
B
D
Royston
B6428
Rabbit Ings
Country Park
Sandybridge Ln
Shafton
High St
Site
A
Weetshaw Ln
A628
Pontefract Rd
Engine Ln
CARLTON
E
Shaw Ln
Fish Dam Ln
ATHERSLEY
NORTH
Carlton Rd
Carlton Industrial Estate
Laithes Ln
F
ATHERSLEY
SOUTH
A61
A633
Cudworth
K
J
Snydale Rd
G
Burton Rd
H
B6132
SMITHIES
I
Darfield Rd

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	All categories: Method of travel to work (2001 specification)

Total	2258	100%
A	389	17%
B	45	2%
C	467	21%
D	41	2%
E	617	27%
F	0	0%
G	463	21%
H	0	0%
I	236	10%
J	0	0%
K	0	0%

	usual residence	
place of work : 2011 super output area - middle layer	**E02001510 : Barnsley 002**	Route
E02004352 : County Durham 0	1	A
E02005720 : Northumberland 0	1	A
E02005730 : Northumberland 0	2	A
E02003845 : Cheshire West an	1	E
E02002591 : Warrington 002	1	E
E02002607 : Warrington 018	1	E
E02001026 : Bury 008	1	E
E02006902 : Manchester 054	1	E
E02001108 : Oldham 011	1	E
E02001261 : Trafford 003	1	E
E02005269 : Preston 017	1	E
E02005281 : Rossendale 004	1	E
E02005284 : Rossendale 007	1	E
E02001444 : Sefton 016	1	E
E02002777 : York 006	1	A
E02002784 : York 013	1	A
E02002785 : York 014	1	A
E02002794 : York 023	1	A
E02005747 : Craven 006	1	C
E02005753 : Hambleton 004	2	A
E02005773 : Harrogate 013	1	A
E02005775 : Harrogate 015	1	A
E02005779 : Harrogate 019	1	A
E02005786 : Richmondshire 00	1	A
E02005790 : Ryedale 003	3	A
E02005798 : Scarborough 004	1	A
E02005809 : Selby 001	2	A
E02005812 : Selby 004	4	A
E02005813 : Selby 005	1	A
E02005814 : Selby 006	1	A
E02005818 : Selby 010	11	A
E02001509 : Barnsley 001	101	C
E02001510 : Barnsley 002	278	E
E02001511 : Barnsley 003	15	A
E02001512 : Barnsley 004	41	D
E02001513 : Barnsley 005	20	E
E02001514 : Barnsley 006	41	A
E02001515 : Barnsley 007	100	E
E02001516 : Barnsley 008	13	A
E02001517 : Barnsley 009	24	G
E02001518 : Barnsley 010	72	G
E02001519 : Barnsley 011	23	I
E02001520 : Barnsley 012	108	E
E02001521 : Barnsley 013	237	G
E02001522 : Barnsley 014	11	A
E02001523 : Barnsley 015	65	I
E02001524 : Barnsley 016	11	E
E02001525 : Barnsley 017	22	G
E02001526 : Barnsley 018	5	I
E02001527 : Barnsley 019	18	G
E02001528 : Barnsley 020	3	A
E02001529 : Barnsley 021	16	I
E02001530 : Barnsley 022	8	A
E02001531 : Barnsley 023	20	I
E02001532 : Barnsley 024	23	E
E02001533 : Barnsley 025	7	A
E02001534 : Barnsley 026	14	I
E02001535 : Barnsley 027	8	I
E02001536 : Barnsley 028	24	G
E02001537 : Barnsley 029	2	I
E02001538 : Barnsley 030	10	I
E02001540 : Doncaster 002	3	A
E02001542 : Doncaster 004	1	A
E02001543 : Doncaster 005	1	A
E02001544 : Doncaster 006	1	A
E02001546 : Doncaster 008	2	A
E02001552 : Doncaster 014	1	A
E02001553 : Doncaster 015	1	A
E02001556 : Doncaster 018	1	A
E02001558 : Doncaster 020	1	A
E02001560 : Doncaster 022	18	A
E02001563 : Doncaster 025	1	A
E02001565 : Doncaster 027	1	A
E02001566 : Doncaster 028	8	A
E02001567 : Doncaster 029	2	A
E02001568 : Doncaster 030	1	A
E02001569 : Doncaster 031	1	A
E02001572 : Doncaster 034	2	A
E02001573 : Doncaster 035	1	A
E02001578 : Rotherham 001	20	A
E02001579 : Rotherham 002	44	A

E02001580 : Rotherham 003	1	A
E02001584 : Rotherham 007	1	A
E02001585 : Rotherham 008	3	A
E02001586 : Rotherham 009	4	I
E02001588 : Rotherham 011	2	A
E02001589 : Rotherham 012	2	A
E02001591 : Rotherham 014	3	A
E02001592 : Rotherham 015	1	A
E02001593 : Rotherham 016	4	A
E02001594 : Rotherham 017	10	A
E02001595 : Rotherham 018	3	A
E02001597 : Rotherham 020	2	A
E02001599 : Rotherham 022	1	A
E02001600 : Rotherham 023	2	A
E02001602 : Rotherham 025	2	A
E02001605 : Rotherham 028	2	A
E02001608 : Rotherham 031	1	A
E02001611 : Sheffield 001	1	G
E02001612 : Sheffield 002	1	G
E02001613 : Sheffield 003	1	G
E02001614 : Sheffield 004	10	I
E02001618 : Sheffield 008	1	G
E02001620 : Sheffield 010	1	A
E02001624 : Sheffield 014	4	A
E02001625 : Sheffield 015	2	A
E02001627 : Sheffield 017	2	A
E02001628 : Sheffield 018	17	I
E02001629 : Sheffield 019	1	I
E02001630 : Sheffield 020	1	I
E02001632 : Sheffield 022	15	I
E02001637 : Sheffield 027	4	G
E02001642 : Sheffield 032	6	G
E02001646 : Sheffield 036	2	G
E02001649 : Sheffield 039	1	G
E02001650 : Sheffield 040	1	G
E02001652 : Sheffield 042	2	G
E02001653 : Sheffield 043	1	G
E02001656 : Sheffield 046	1	G
E02001658 : Sheffield 048	1	G
E02001660 : Sheffield 050	1	G
E02001663 : Sheffield 053	1	G
E02001665 : Sheffield 055	1	G
E02001678 : Sheffield 068	1	G
E02006843 : Sheffield 073	8	I
E02006844 : Sheffield 074	10	I
E02006868 : Sheffield 075	7	I
E02002200 : Bradford 018	1	E
E02002202 : Bradford 020	1	E
E02002227 : Bradford 045	2	E
E02002228 : Bradford 046	1	E
E02002239 : Bradford 057	1	E
E02002241 : Bradford 059	1	E
E02002253 : Calderdale 010	1	E
E02002258 : Calderdale 015	1	E
E02002261 : Calderdale 018	1	E
E02002262 : Calderdale 019	1	E
E02002271 : Kirklees 001	3	E
E02002272 : Kirklees 002	2	E
E02002273 : Kirklees 003	3	E
E02002275 : Kirklees 005	2	E
E02002276 : Kirklees 006	1	E
E02002277 : Kirklees 007	1	E
E02002280 : Kirklees 010	3	E
E02002281 : Kirklees 011	1	E
E02002283 : Kirklees 013	2	E
E02002284 : Kirklees 014	3	E
E02002286 : Kirklees 016	1	E
E02002287 : Kirklees 017	2	E
E02002291 : Kirklees 021	1	E
E02002294 : Kirklees 024	2	E
E02002295 : Kirklees 025	3	E
E02002299 : Kirklees 029	1	E
E02002303 : Kirklees 033	1	E
E02002305 : Kirklees 035	2	E
E02002313 : Kirklees 043	1	E
E02002316 : Kirklees 046	1	E
E02002321 : Kirklees 051	4	E
E02002323 : Kirklees 053	1	E
E02002324 : Kirklees 054	1	E
E02002326 : Kirklees 056	1	E
E02002327 : Kirklees 057	5	E
E02002329 : Kirklees 059	3	E
E02002333 : Leeds 004	1	C
E02002336 : Leeds 007	3	C
E02002359 : Leeds 030	2	C
E02002364 : Leeds 035	1	C
E02002369 : Leeds 040	1	C
E02002384 : Leeds 055	7	C
E02002390 : Leeds 061	3	C
E02002392 : Leeds 063	3	C
E02002393 : Leeds 064	4	C
E02002394 : Leeds 065	1	C
E02002395 : Leeds 066	1	C
E02002396 : Leeds 067	1	C
E02002397 : Leeds 068	2	C
E02002399 : Leeds 070	2	C
E02002400 : Leeds 071	6	C
E02002404 : Leeds 075	1	C
E02002406 : Leeds 077	1	C
E02002411 : Leeds 082	1	C
E02002415 : Leeds 086	1	C
E02002417 : Leeds 088	2	C
E02002418 : Leeds 089	1	C
E02002419 : Leeds 090	7	C
E02002420 : Leeds 091	2	C
E02002422 : Leeds 093	1	C

E02002424 : Leeds 095	1	C
E02002426 : Leeds 097	1	C
E02002427 : Leeds 098	1	C
E02002431 : Leeds 102	1	C
E02002432 : Leeds 103	1	C
E02002433 : Leeds 104	5	C
E02002434 : Leeds 105	1	C
E02002435 : Leeds 106	1	C
E02002436 : Leeds 107	5	C
E02002437 : Leeds 108	1	C
E02006875 : Leeds 111	18	C
E02006876 : Leeds 112	16	C
E02002438 : Wakefield 001	1	B
E02002439 : Wakefield 002	16	B
E02002441 : Wakefield 004	3	B
E02002442 : Wakefield 005	11	B
E02002443 : Wakefield 006	4	C
E02002444 : Wakefield 007	5	C
E02002445 : Wakefield 008	4	C
E02002446 : Wakefield 009	6	C
E02002447 : Wakefield 010	3	A
E02002448 : Wakefield 011	1	A
E02002449 : Wakefield 012	1	A
E02002450 : Wakefield 013	16	C
E02002451 : Wakefield 014	18	C
E02002452 : Wakefield 015	7	A
E02002453 : Wakefield 016	4	A
E02002454 : Wakefield 017	40	C
E02002455 : Wakefield 018	1	A
E02002456 : Wakefield 019	33	C
E02002457 : Wakefield 020	1	C
E02002458 : Wakefield 021	8	C
E02002459 : Wakefield 022	6	C
E02002461 : Wakefield 024	6	B
E02002462 : Wakefield 025	2	C
E02002463 : Wakefield 026	4	C
E02002464 : Wakefield 027	8	B
E02002465 : Wakefield 028	15	C
E02002467 : Wakefield 030	27	C
E02002468 : Wakefield 031	5	C
E02002469 : Wakefield 032	3	C
E02002470 : Wakefield 033	16	C
E02002472 : Wakefield 035	4	E
E02002473 : Wakefield 036	8	C
E02002474 : Wakefield 037	10	C
E02002475 : Wakefield 038	26	C
E02002476 : Wakefield 039	4	A
E02002477 : Wakefield 040	7	A
E02002479 : Wakefield 042	6	A
E02002480 : Wakefield 043	15	A
E02002481 : Wakefield 044	19	A
E02002482 : Wakefield 045	1	A
E02006851 : Leicester 041	1	G
E02004045 : Bolsover 001	2	A
E02004055 : Chesterfield 001	1	G
E02004056 : Chesterfield 002	1	G
E02004095 : High Peak 003	1	C
E02004105 : North East Derbys	1	A
E02004108 : North East Derbys	1	A
E02006804 : North East Derbys	1	A
E02005361 : Charnwood 017	1	A
E02005407 : North West Leices	1	A
E02005450 : Lincoln 009	1	A
E02005456 : North Kesteven 0(	1	A
E02005837 : Bassetlaw 003	1	A
E02005843 : Bassetlaw 009	2	A
E02005879 : Gedling 015	1	A
E02005892 : Mansfield 013	3	A
E02005899 : Newark and Sherv	1	A
E02005912 : Rushcliffe 007	1	A
E02006013 : Shropshire 034	8	G
E02006033 : Shropshire 019	1	G
E02006161 : Newcastle-under-l	1	G
E02006473 : North Warwickshi	1	G
E02006492 : Rugby 001	1	G
E02006494 : Rugby 003	1	G
E02001857 : Birmingham 031	1	G
E02001965 : Coventry 008	1	G
E02001991 : Coventry 034	1	G
E02002124 : Walsall 015	1	G
E02003275 : Luton 018	1	G
E02003792 : South Cambridges	1	A
E02004868 : Dacorum 013	1	G
E02004906 : Hertsmere 011	1	G
E02004909 : North Hertfordshir	1	A
E02004910 : North Hertfordshir	1	A
E02004964 : Three Rivers 009	1	G
E02000001 : City of London 00	2	G
E02000243 : Ealing 006	1	G
E02004722 : Eastleigh 011	1	G
E02004741 : Gosport 001	1	G
E02005033 : Dartford 006	1	A
E02005053 : Dover 013	2	A
E02005078 : Maidstone 011	1	A
E02003950 : Cornwall 069	1	G
E02003082 : North Somerset 0	1	G
E02003098 : South Gloucesters	1	G
E02003156 : Torbay 003	1	G
E02004619 : Cotswold 005	1	G
E02004621 : Cotswold 007	2	G
E02004671 : Tewkesbury 006	1	G
E02006110 : Taunton Deane 01	2	G

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix J – TEMPRO Growth Factors

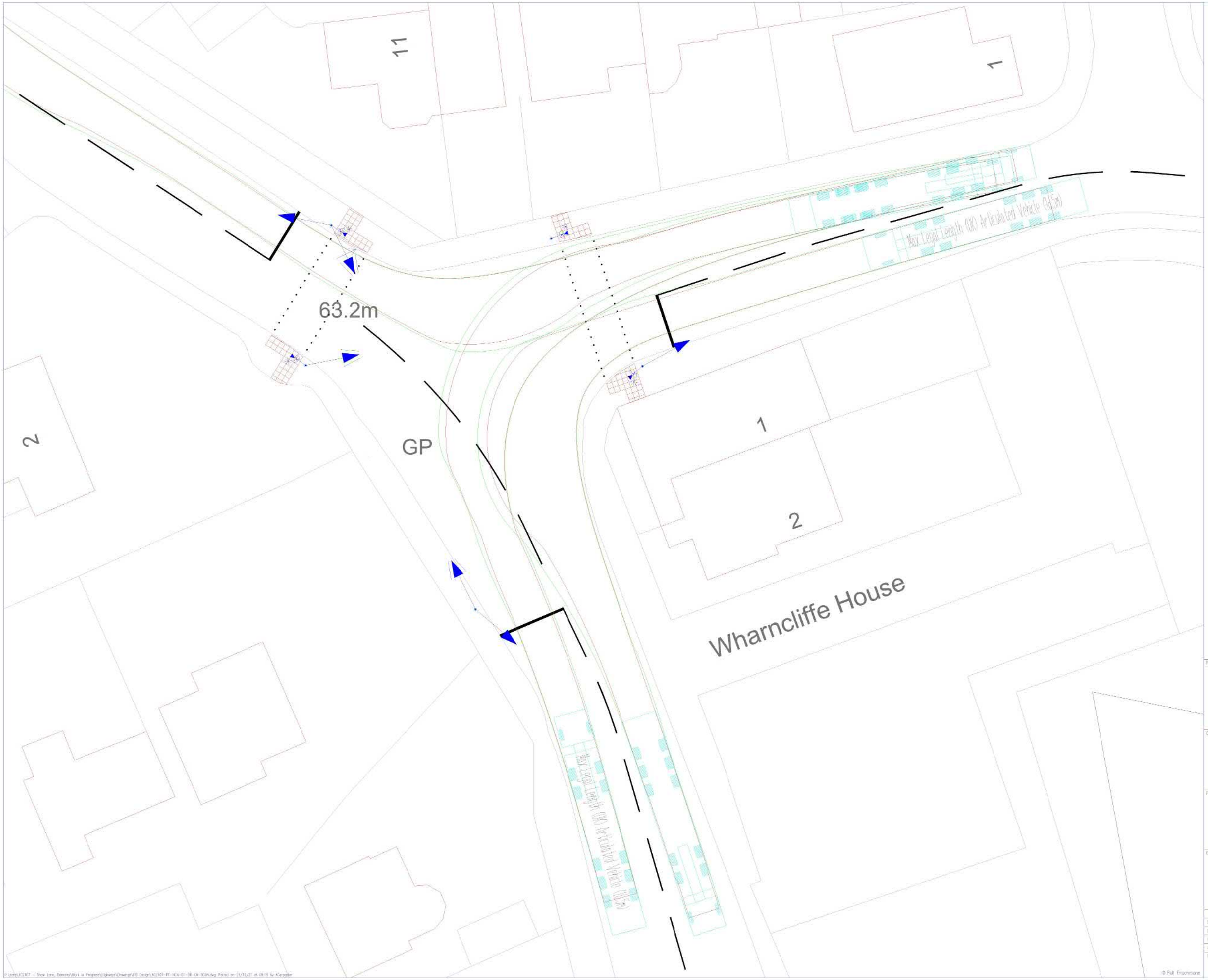
Dataset Version:	72		
Result Type:	Trip ends by time period		
Base Year:	2018		
Future Year:	2022		
Trip Purpose Group:	All purposes		
Time Period:	Weekday AM peak period (0700 - 0959)		
Trip End Type:	Origin/Destination		
Alternative Assumptions Applied:	No		
Growth Factor			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1.0452	1.0438
Future Year - Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	61	70
Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,342	1,608
Future Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,403	1,678
Level	Area	Local Growth Figure	
E02001510	Barnsley 002	1.0464	

Dataset Version:	72		
Result Type:	Trip ends by time period		
Base Year:	2018		
Future Year:	2022		
Trip Purpose Group:	All purposes		
Time Period:	Weekday PM peak period (1600 - 1859)		
Trip End Type:	Origin/Destination		
Alternative Assumptions Applied:	No		
Growth Factor			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1.0416	1.0427
Future Year - Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	66	58
Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,589	1,349
Future Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,655	1,406
Level	Area	Local Growth Figure	
E02001510	Barnsley 002	1.0441	

Dataset Version:	72		
Result Type:	Trip ends by time period		
Base Year:	2018		
Future Year:	2027		
Trip Purpose Group:	All purposes		
Time Period:	Weekday AM peak period (0700 - 0959)		
Trip End Type:	Origin/Destination		
Alternative Assumptions Applied:	No		
Growth Factor			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1.0828	1.0788
Future Year - Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	111	127
Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,342	1,608
Future Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,453	1,734
Level	Area	Local Growth Figure	
E02001510	Barnsley 002	1.0898	

Dataset Version:	72		
Result Type:	Trip ends by time period		
Base Year:	2018		
Future Year:	2027		
Trip Purpose Group:	All purposes		
Time Period:	Weekday PM peak period (1600 - 1859)		
Trip End Type:	Origin/Destination		
Alternative Assumptions Applied:	No		
Growth Factor			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1.0764	1.0801
Future Year - Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	121	108
Base Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,589	1,349
Future Year			
Area Description		All purposes	
Level	Name	Origin	Destination
E02001510	Barnsley 002	1,710	1,457
Level	Area	Local Growth Figure	
E02001510	Barnsley 002	1.0872	

Appendix K – Mitigation Strategy: Drawings



REV	DESCRIPTION	ORN	CHK	APP	DATE

Pell Frischmann
GEORGE HOUSE, GEORGE STREET, WAKEFIELD WF1 1LY
Telephone +44 (0)1924 368 145
Email: pfwakefield@pellfrischmann.com
www.pellfrischmann.com

Client

Project
SHAW LANE

Drawing Title
SHAW LANE / CHURCH STREET
JUNCTION SIGNALISATION

	Name	Date
Drawn	PB	10112021
Designed	PB	10112021
Checked	RE	10112021
Approved	RE	10112021

Scale 1:125 @ A1
File No. 102107-PF-HGN-01-DR-CH-0004.dwg
Drawing Status DRAFT
Drawing No. DW102107-HGN-01-004
Revision R1

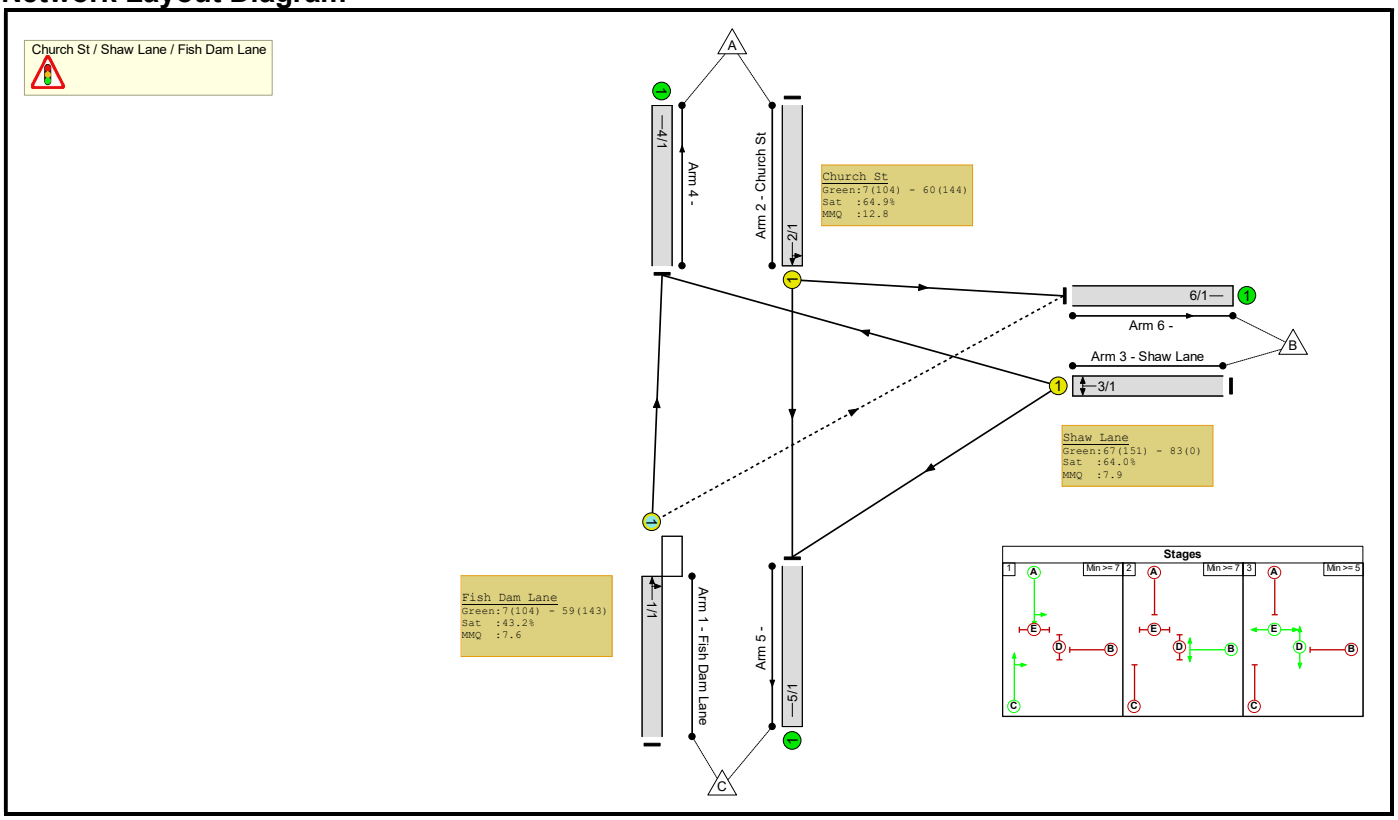
Appendix L – Mitigation Strategy: LinSIg Modelling Outputs

Full Input Data And Results

User and Project Details

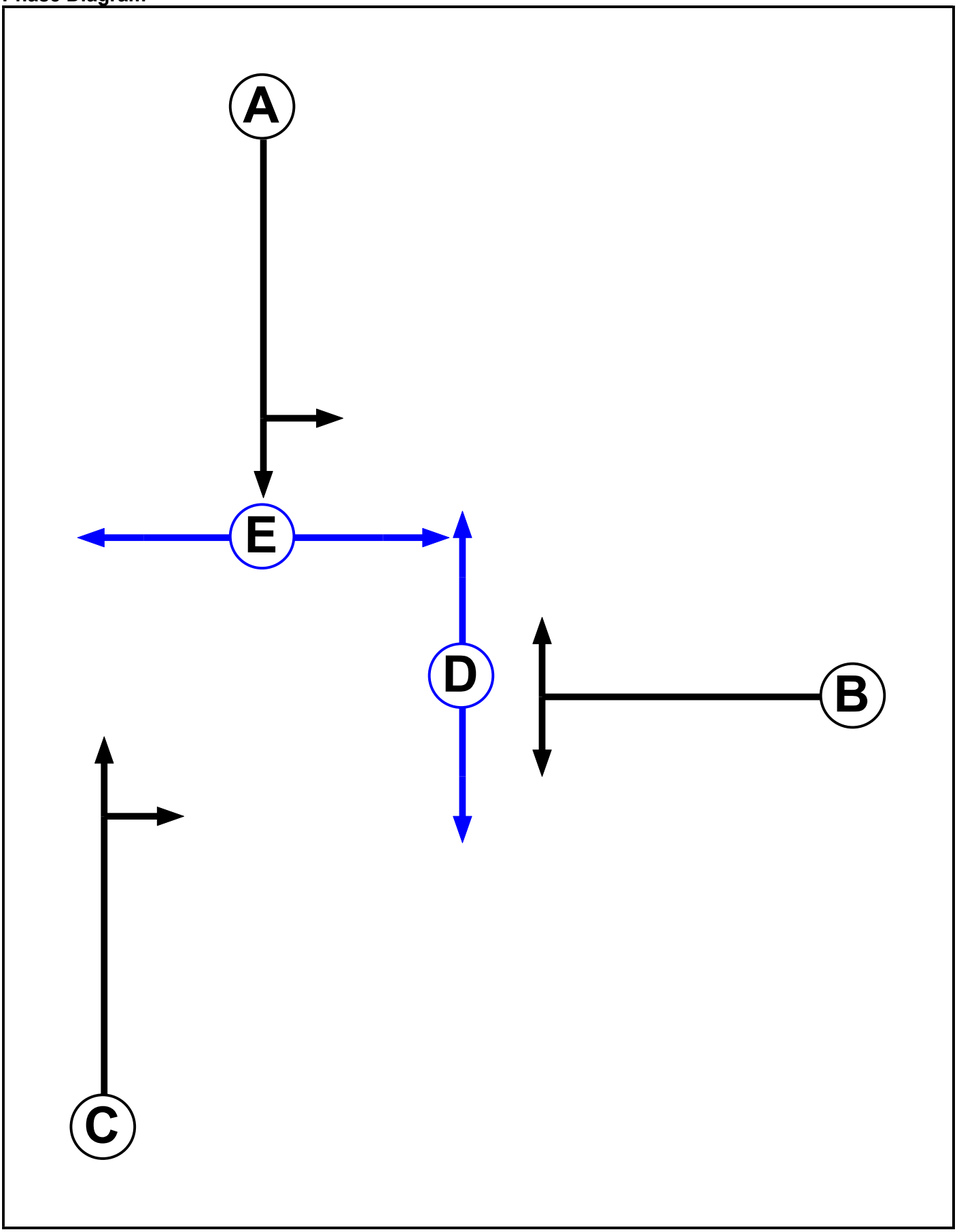
Project:	**Shaw Lane**
Title:	**Shaw Lane / Church St Signalisation**
Location:	
Additional detail:	
File name:	Church St_Shaw Lane Signal.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

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	Pedestrian		5	5
E	Pedestrian		5	5

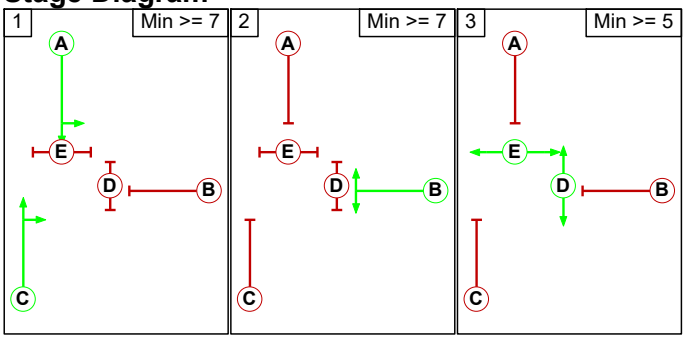
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		7	-	6	5
	B	7		7	5	6
	C	-	7		6	6
	D	10	10	10		-
	E	9	9	9	-	

Phases in Stage

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

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	1	1

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		8	6
	2	7		6
	3	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Church St / Shaw Lane / Fish Dam Lane											
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 (Fish Dam Lane)	6/1 (Right)	1439	0	2/1	1.09	All	3.00	3.00	0.50	3	3.00

Full Input Data And Results

Lane Input Data

Junction: Church St / Shaw Lane / Fish Dam Lane												
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 (Fish Dam Lane)	O	C	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Right	9.37
2/1 (Church St)	U	A	2	3	60.0	Geom	-	3.78	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Left	15.70
3/1 (Shaw Lane)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 4 Right	26.23
											Arm 5 Left	18.75
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2018 AM'	07:45	08:45	01:00	
2: '2018 PM'	16:00	17:00	01:00	
3: '2022 AM Without'	07:45	08:45	01:00	
4: '2022 PM Without'	16:00	17:00	01:00	
5: '2022 AM + Dev'	07:45	08:45	01:00	
6: '2022 PM + Dev'	16:00	17:00	01:00	
7: '2027 AM Without'	07:45	08:45	01:00	
8: '2027 PM Without'	16:00	17:00	01:00	
9: '2027 AM + Dev'	07:45	08:45	01:00	
10: '2027 PM + Dev'	16:00	17:00	01:00	

Scenario 1: '2018 AM Observed Flows' (FG1: '2018 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	241	419	660
	B	257	0	60	317
	C	427	39	0	466
	Tot.	684	280	479	1443

Traffic Lane Flows

Lane	Scenario 1: 2018 AM Observed Flows
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	466
2/1	660
3/1	317
4/1	684
5/1	479
6/1	280

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	91.6 %	2087	2087
				Arm 6 Right	9.37	8.4 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	63.5 %	1926	1926
				Arm 6 Left	15.70	36.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	81.1 %	1898	1898
				Arm 5 Left	18.75	18.9 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2018 PM Observed Flows' (FG2: '2018 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	245	260	505
	B	240	0	28	268
	C	354	63	0	417
	Tot.	594	308	288	1190

Traffic Lane Flows

Lane	Scenario 2: 2018 PM Observed Flows
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	417
2/1	505
3/1	268
4/1	594
5/1	288
6/1	308

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	84.9 %	2065	2065
				Arm 6 Right	9.37	15.1 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	51.5 %	1905	1905
				Arm 6 Left	15.70	48.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	89.6 %	1902	1902
				Arm 5 Left	18.75	10.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2022 AM Without Development' (FG3: '2022 AM Without', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	252	438	690
	B	269	0	63	332
	C	447	41	0	488
	Tot.	716	293	501	1510

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2022 AM Without Development
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	488
2/1	690
3/1	332
4/1	716
5/1	501
6/1	293

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	91.6 %	2087	2087
				Arm 6 Right	9.37	8.4 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	63.5 %	1926	1926
				Arm 6 Left	15.70	36.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	81.0 %	1898	1898
				Arm 5 Left	18.75	19.0 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2022 PM Without Development' (FG4: '2022 PM Without', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	256	271	527
	B	251	0	30	281
	C	370	66	0	436
	Tot.	621	322	301	1244

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2022 PM Without Development
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	436
2/1	527
3/1	281
4/1	621
5/1	301
6/1	322

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	84.9 %	2065	2065
				Arm 6 Right	9.37	15.1 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	51.4 %	1905	1905
				Arm 6 Left	15.70	48.6 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	89.3 %	1902	1902
				Arm 5 Left	18.75	10.7 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2022 AM + Dev' (FG5: '2022 AM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	260	438	698
	B	292	0	108	400
	C	447	56	0	503
	Tot.	739	316	546	1601

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2022 AM + Dev
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	503
2/1	698
3/1	400
4/1	739
5/1	546
6/1	316

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	88.9 %	2078	2078
				Arm 6 Right	9.37	11.1 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	62.8 %	1925	1925
				Arm 6 Left	15.70	37.2 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	73.0 %	1895	1895
				Arm 5 Left	18.75	27.0 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2022 PM + Dev' (FG6: '2022 PM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	278	271	549
	B	262	0	52	314
	C	370	110	0	480
	Tot.	632	388	323	1343

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2022 PM + Dev
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	480
2/1	549
3/1	314
4/1	632
5/1	323
6/1	388

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	77.1 %	2040	2040
				Arm 6 Right	9.37	22.9 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	49.4 %	1901	1901
				Arm 6 Left	15.70	50.6 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	83.4 %	1899	1899
				Arm 5 Left	18.75	16.6 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2027 AM Without Development' (FG7: '2027 AM Without', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	263	457	720
	B	281	0	65	346
	C	465	43	0	508
	Tot.	746	306	522	1574

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2027 AM Without Development
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	508
2/1	720
3/1	346
4/1	746
5/1	522
6/1	306

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	91.5 %	2087	2087
				Arm 6 Right	9.37	8.5 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	63.5 %	1926	1926
				Arm 6 Left	15.70	36.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	81.2 %	1898	1898
				Arm 5 Left	18.75	18.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2027 PM Without Development' (FG8: '2027 PM Without', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	267	283	550
	B	261	0	31	292
	C	385	69	0	454
	Tot.	646	336	314	1296

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2027 PM Without Development
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	454
2/1	550
3/1	292
4/1	646
5/1	314
6/1	336

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	84.8 %	2065	2065
				Arm 6 Right	9.37	15.2 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	51.5 %	1905	1905
				Arm 6 Left	15.70	48.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	89.4 %	1902	1902
				Arm 5 Left	18.75	10.6 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2027 AM + Dev' (FG9: '2027 AM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	271	457	728
	B	304	0	111	415
	C	465	58	0	523
	Tot.	769	329	568	1666

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2027 AM + Dev
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	523
2/1	728
3/1	415
4/1	769
5/1	568
6/1	329

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	88.9 %	2078	2078
				Arm 6 Right	9.37	11.1 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	62.8 %	1925	1925
				Arm 6 Left	15.70	37.2 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	73.3 %	1895	1895
				Arm 5 Left	18.75	26.7 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2027 PM + Dev' (FG10: '2027 PM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	289	283	572
	B	273	0	53	326
	C	385	113	0	498
	Tot.	658	402	336	1396

Full Input Data And Results

Traffic Lane Flows

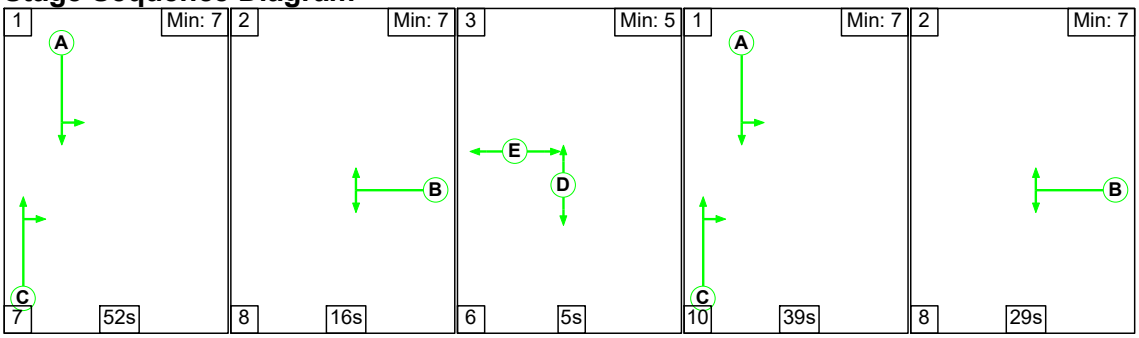
Lane	Scenario 10: 2027 PM + Dev
Junction: Church St / Shaw Lane / Fish Dam Lane	
1/1	498
2/1	572
3/1	326
4/1	658
5/1	336
6/1	402

Lane Saturation Flows

Junction: Church St / Shaw Lane / Fish Dam Lane								
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 (Fish Dam Lane)	5.00	0.00	Y	Arm 4 Ahead	Inf	77.3 %	2041	2041
				Arm 6 Right	9.37	22.7 %		
2/1 (Church St)	3.78	0.00	Y	Arm 5 Ahead	Inf	49.5 %	1901	1901
				Arm 6 Left	15.70	50.5 %		
3/1 (Shaw Lane)	4.00	0.00	Y	Arm 4 Right	26.23	83.7 %	1899	1899
				Arm 5 Left	18.75	16.3 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2018 AM Observed Flows' (FG1: '2018 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

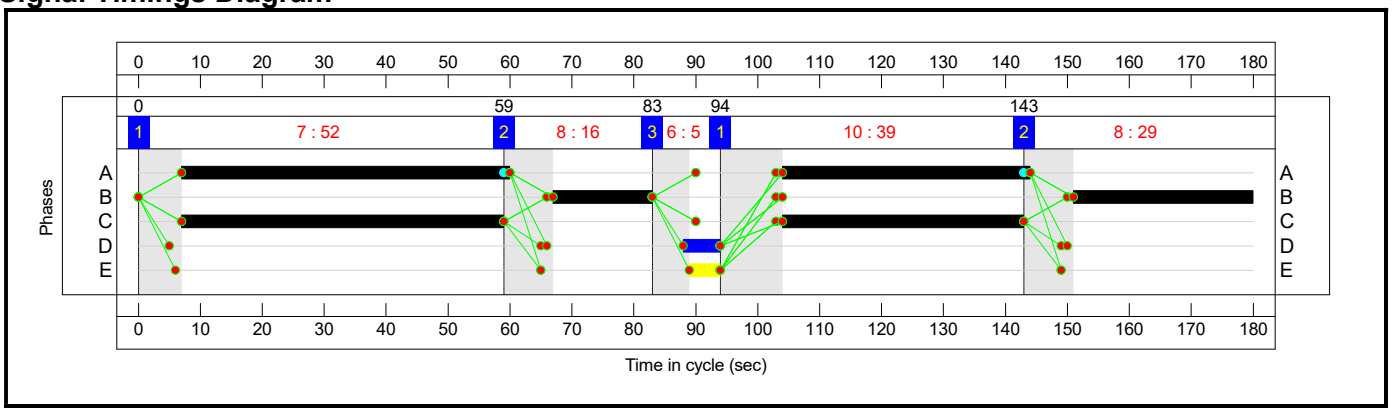


Stage Timings

Stage	1	2	3	1	2
Duration	52	16	5	39	29
Change Point	0	59	83	94	143

Full Input Data And Results

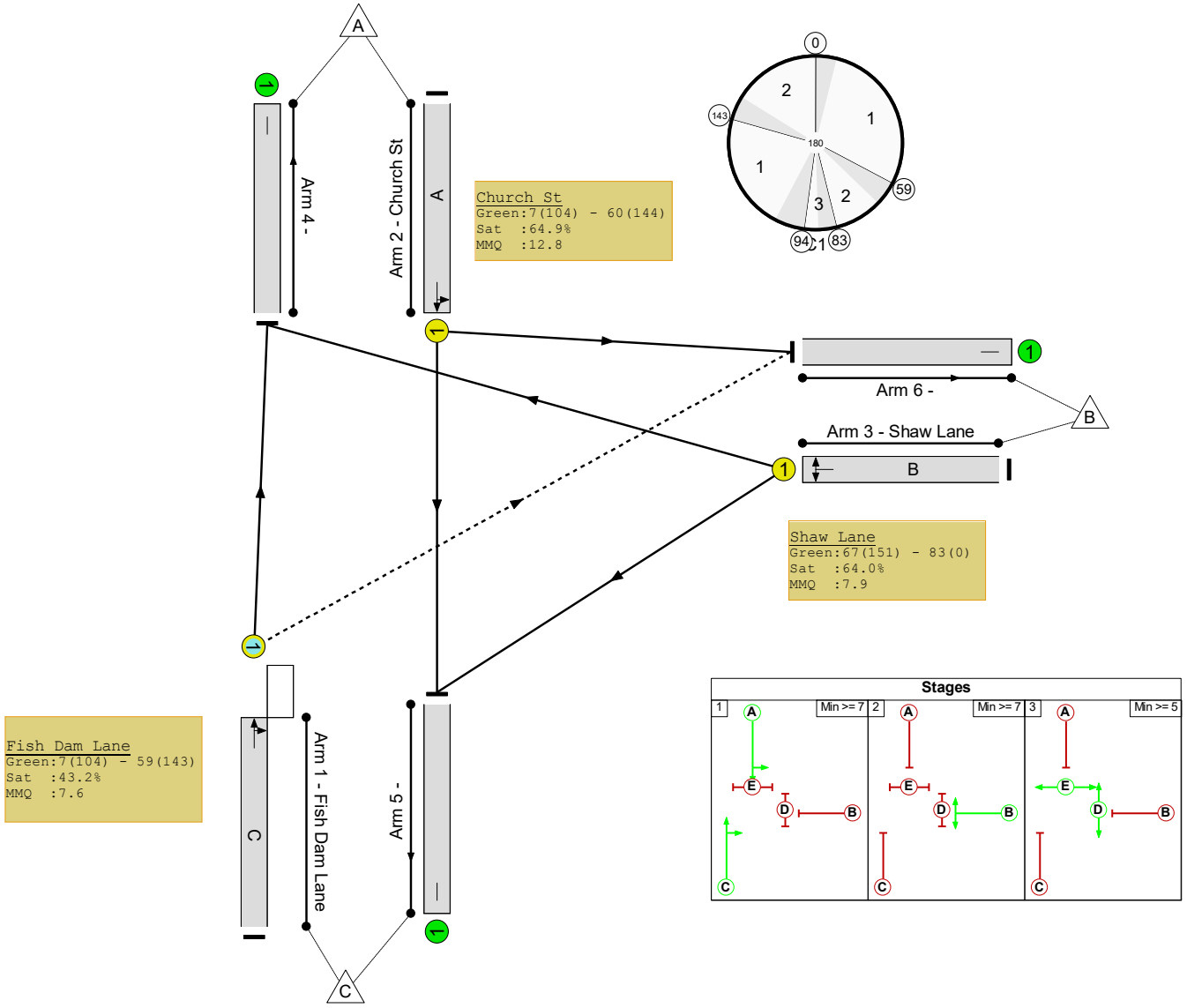
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 38.6 %
Total Traffic Delay: 9.5 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	91	-	466	2087	1078	43.2%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	93	-	660	1926	1016	64.9%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	45	-	317	1898	496	64.0%
4/1		U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	479	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	280	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**39**	**0**	**0**	**7.2**	**2.2**	**0.1**	**9.5**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**39**	**0**	**0**	**7.2**	**2.2**	**0.1**	**9.5**	**-**	**-**	**-**	**-**
1/1	466	466	39	0	0	1.8	0.4	0.1	2.3	17.4	7.2	0.4	7.6
2/1	660	660	-	-	-	2.8	0.9	-	3.7	20.3	11.9	0.9	12.8
3/1	317	317	-	-	-	2.6	0.9	-	3.5	39.5	7.0	0.9	7.9
4/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	280	280	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

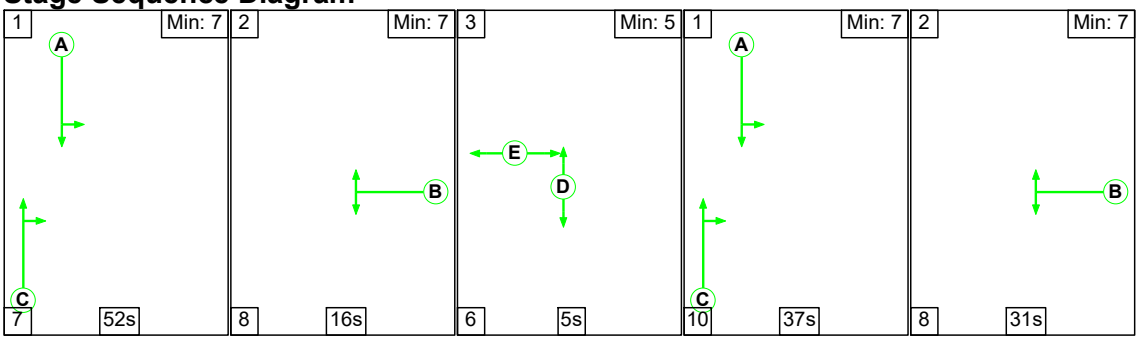
C1 PRC for Signalled Lanes (%): 38.6 Total Delay for Signalled Lanes (pcuHr): 9.45 Cycle Time (s): 180
PRC Over All Lanes (%): 38.6 Total Delay Over All Lanes(pcuHr): 9.45

Full Input Data And Results

Full Input Data And Results

Scenario 2: '2018 PM Observed Flows' (FG2: '2018 PM', Plan 1: 'Network Control Plan 1')

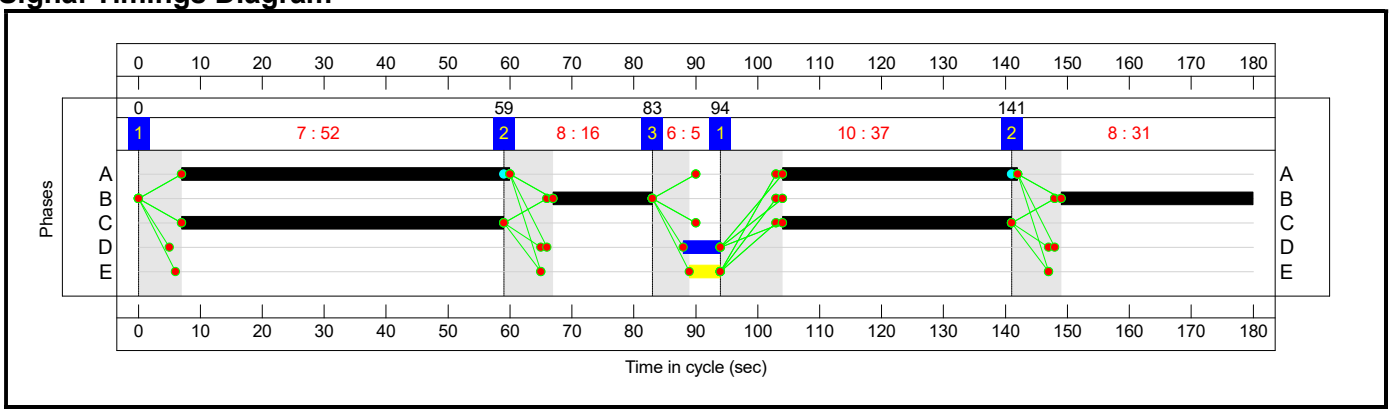
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	52	16	5	37	31
Change Point	0	59	83	94	141

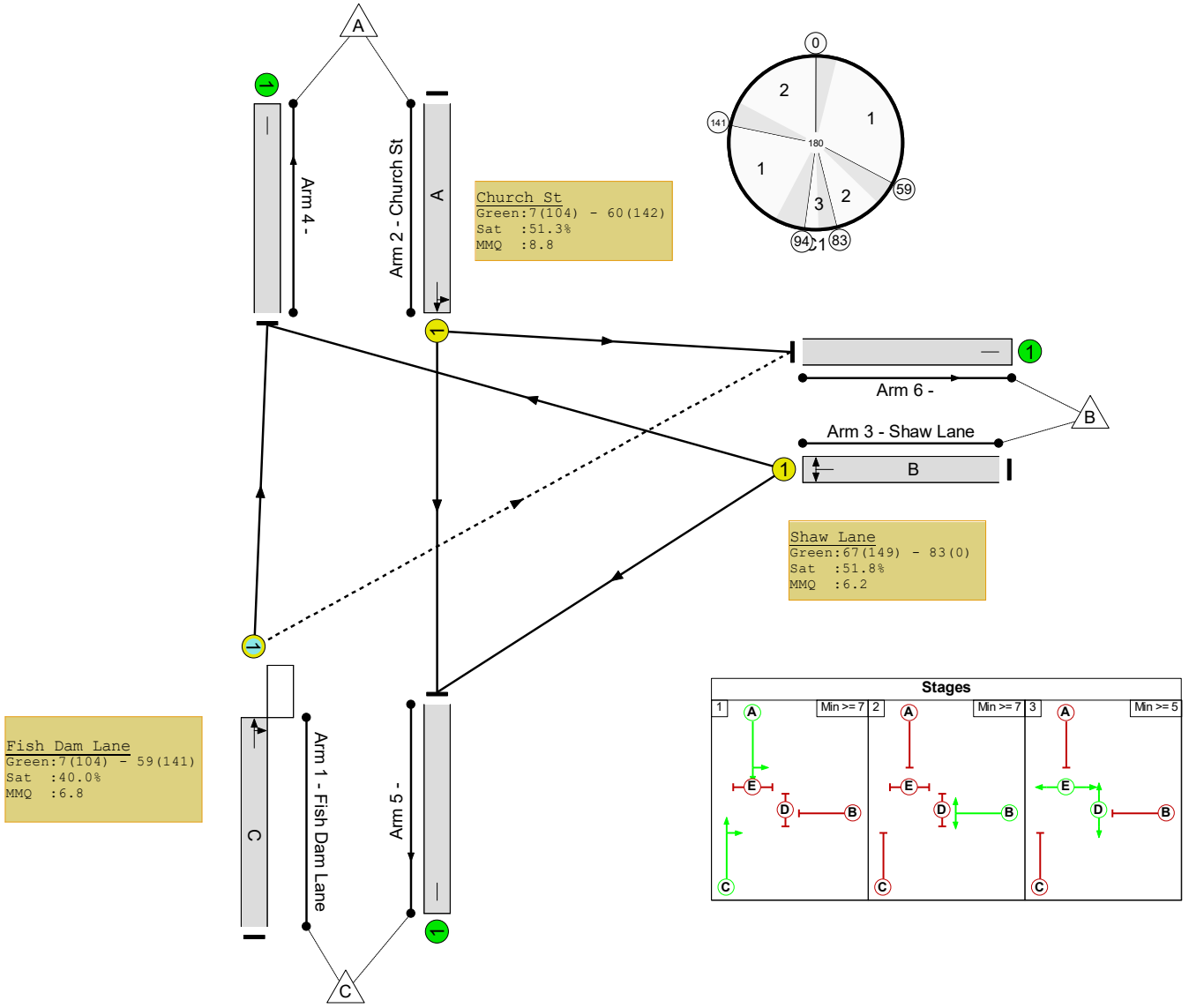
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 73.9 %
Total Traffic Delay: 7.2 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**51.8%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**51.8%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	89	-	417	2065	1042	40.0%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	91	-	505	1905	984	51.3%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	47	-	268	1902	518	51.8%
4/1		U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	308	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**63**	**0**	**0**	**5.7**	**1.4**	**0.1**	**7.2**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**63**	**0**	**0**	**5.7**	**1.4**	**0.1**	**7.2**	**-**	**-**	**-**	**-**
1/1	417	417	63	0	0	1.6	0.3	0.1	2.1	17.8	6.5	0.3	6.8
2/1	505	505	-	-	-	2.0	0.5	-	2.5	18.1	8.3	0.5	8.8
3/1	268	268	-	-	-	2.1	0.5	-	2.6	34.9	5.7	0.5	6.2
4/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	288	288	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

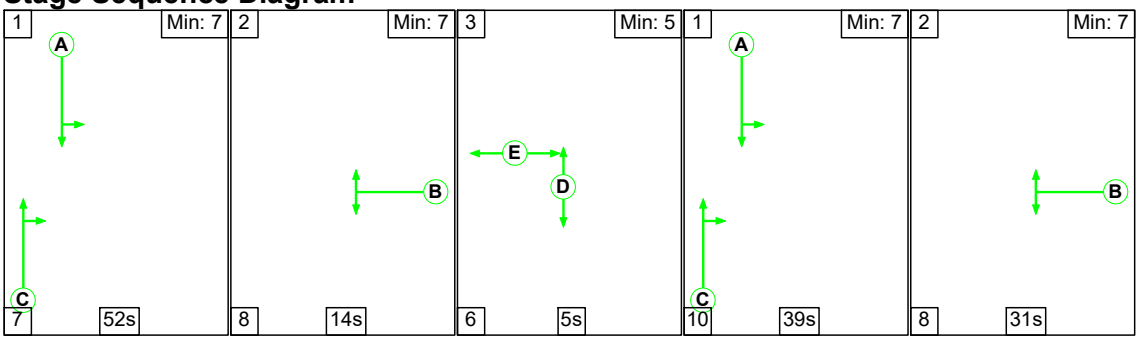
C1 PRC for Signalled Lanes (%): 73.9 Total Delay for Signalled Lanes (pcuHr): 7.19 Cycle Time (s): 180
PRC Over All Lanes (%): 73.9 Total Delay Over All Lanes(pcuHr): 7.19

Full Input Data And Results

Full Input Data And Results

Scenario 3: '2022 AM Without Development' (FG3: '2022 AM Without', Plan 1: 'Network Control Plan 1')

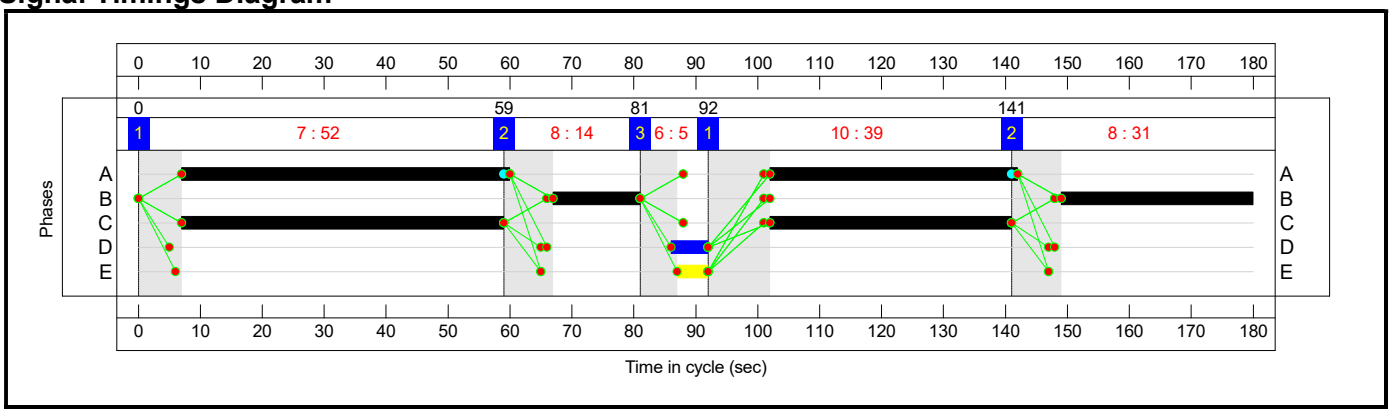
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	52	14	5	39	31
Change Point	0	59	81	92	141

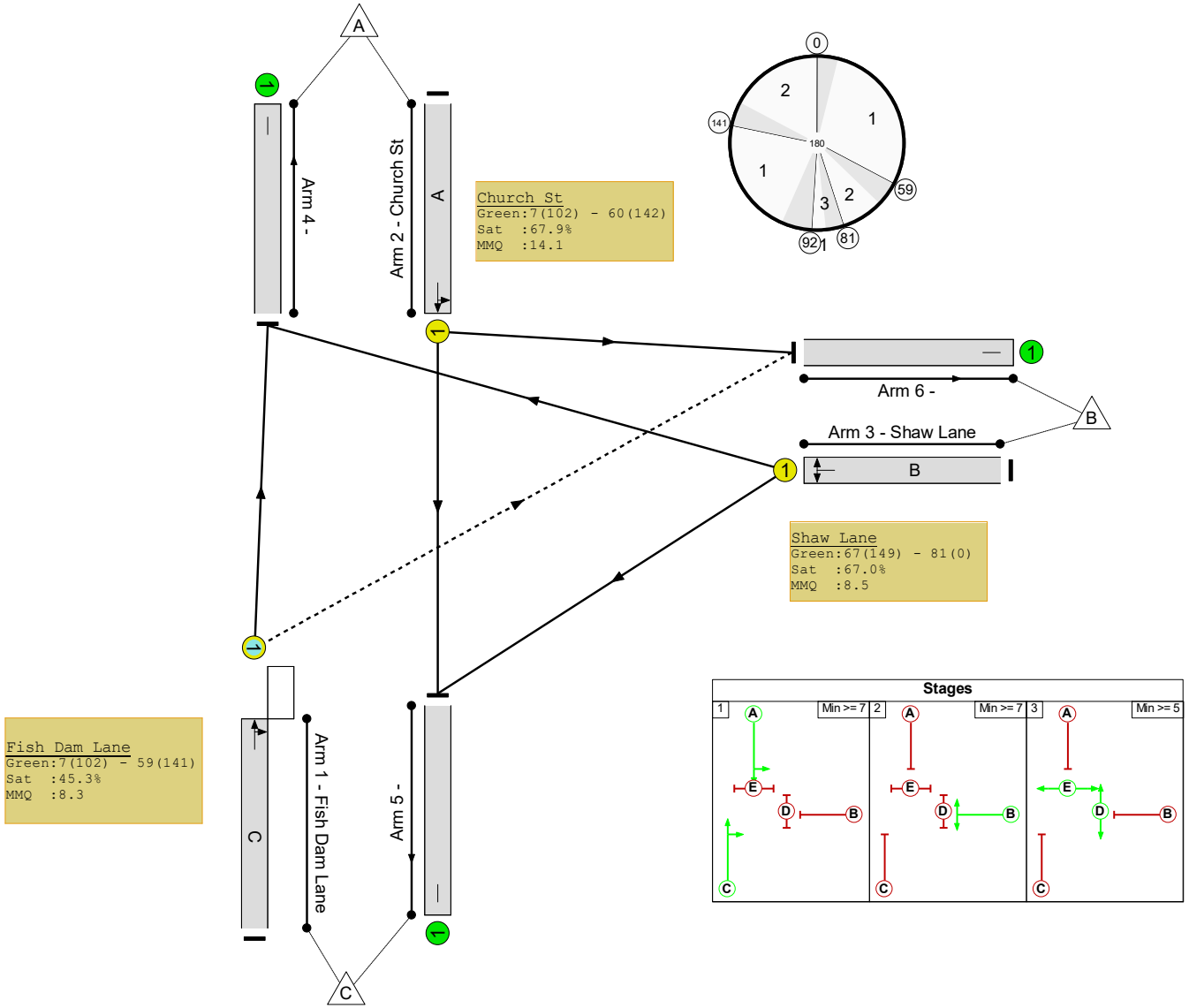
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 32.6 %
Total Traffic Delay: 10.2 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.9%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.9%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	91	-	488	2087	1078	45.3%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	93	-	690	1926	1016	67.9%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	45	-	332	1898	496	67.0%
4/1		U	N/A	N/A	-		-	-	-	716	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	501	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	293	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**41**	**0**	**0**	**7.6**	**2.5**	**0.1**	**10.2**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**41**	**0**	**0**	**7.6**	**2.5**	**0.1**	**10.2**	**-**	**-**	**-**	**-**
1/1	488	488	41	0	0	1.9	0.4	0.1	2.4	17.8	7.9	0.4	8.3
2/1	690	690	-	-	-	3.0	1.0	-	4.1	21.1	13.0	1.0	14.1
3/1	332	332	-	-	-	2.7	1.0	-	3.7	40.7	7.5	1.0	8.5
4/1	716	716	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	293	293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

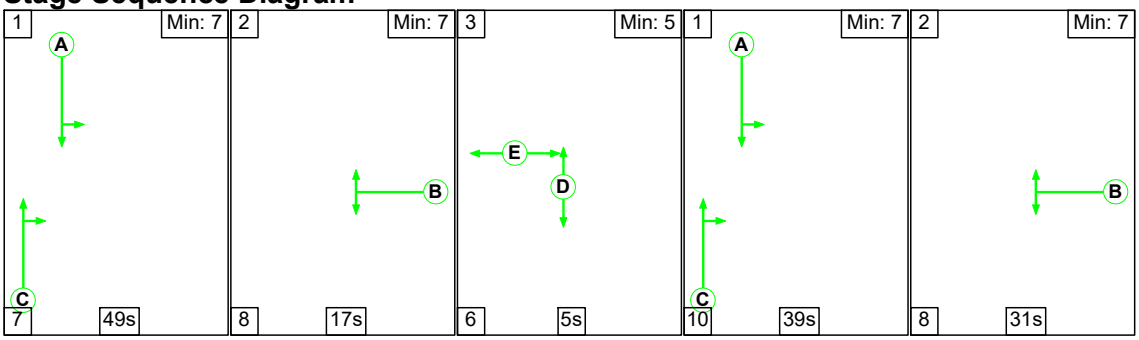
C1 PRC for Signalled Lanes (%): 32.6 Total Delay for Signalled Lanes (pcuHr): 10.22 Cycle Time (s): 180
PRC Over All Lanes (%): 32.6 Total Delay Over All Lanes(pcuHr): 10.22

Full Input Data And Results

Full Input Data And Results

Scenario 4: '2022 PM Without Development' (FG4: '2022 PM Without', Plan 1: 'Network Control Plan 1')

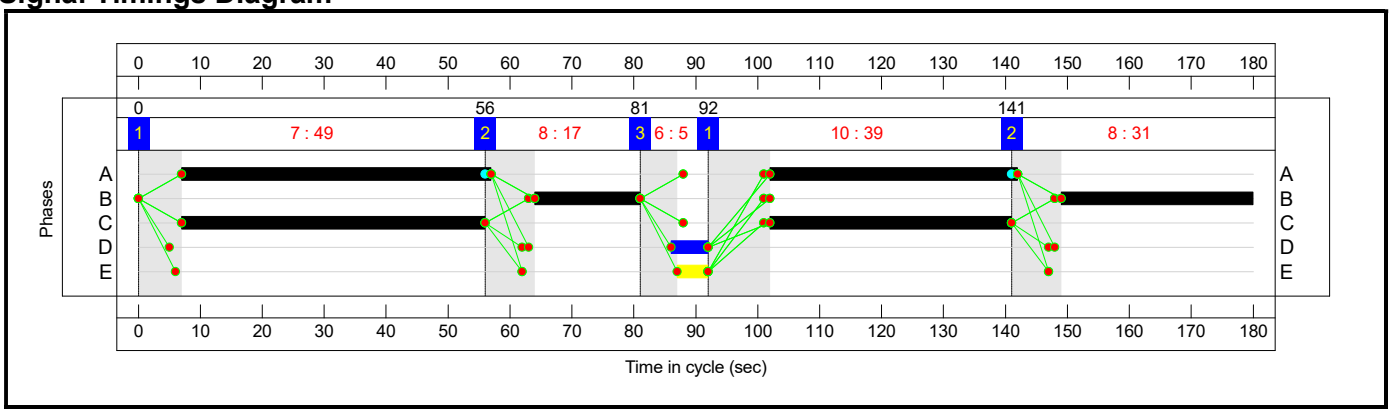
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	49	17	5	39	31
Change Point	0	56	81	92	141

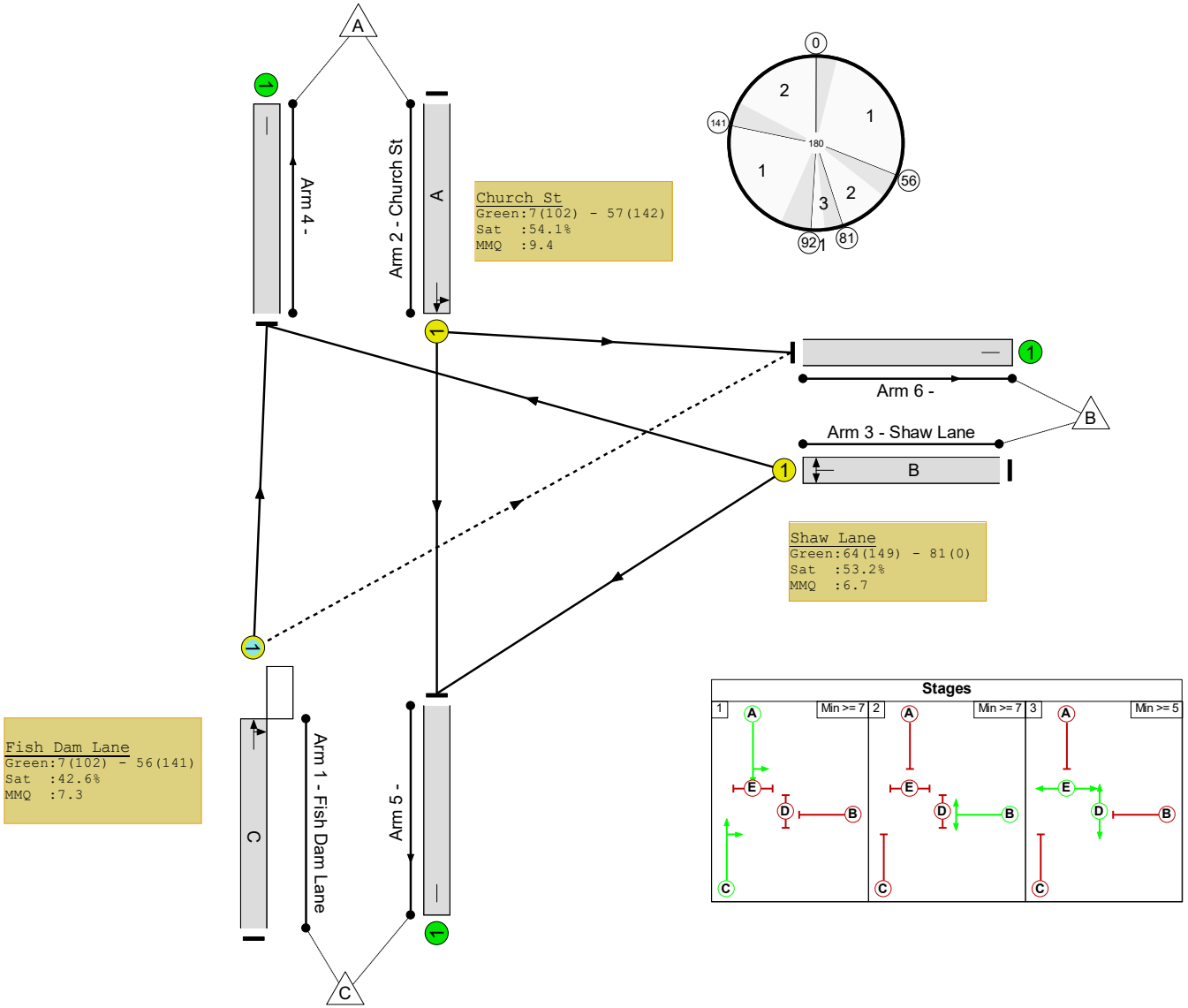
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 66.3 %
Total Traffic Delay: 7.7 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**54.1%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**54.1%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	88	-	436	2065	1022	42.6%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	90	-	527	1905	974	54.1%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	48	-	281	1902	528	53.2%
4/1		U	N/A	N/A	-		-	-	-	621	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**66**	**0**	**0**	**6.1**	**1.5**	**0.1**	**7.7**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**66**	**0**	**0**	**6.1**	**1.5**	**0.1**	**7.7**	**-**	**-**	**-**	**-**
1/1	436	436	66	0	0	1.7	0.4	0.1	2.2	18.6	6.9	0.4	7.3
2/1	527	527	-	-	-	2.2	0.6	-	2.8	18.9	8.8	0.6	9.4
3/1	281	281	-	-	-	2.2	0.6	-	2.7	34.8	6.1	0.6	6.7
4/1	621	621	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

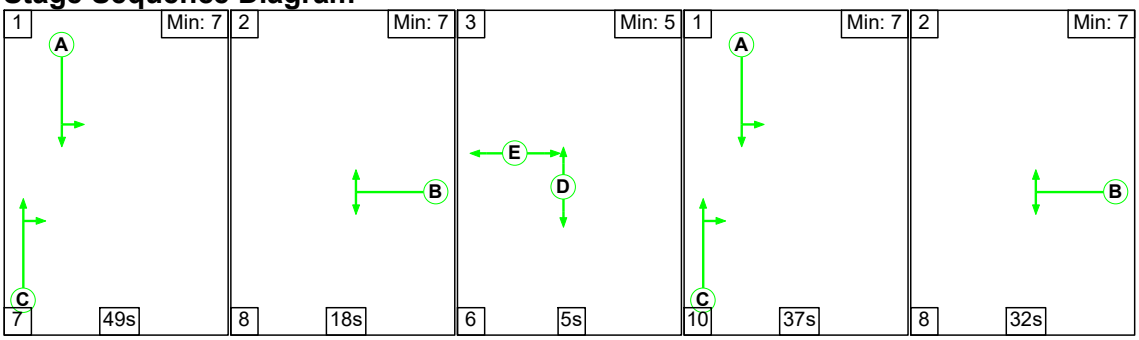
C1 PRC for Signalled Lanes (%): 66.3 Total Delay for Signalled Lanes (pcuHr): 7.73 Cycle Time (s): 180
PRC Over All Lanes (%): 66.3 Total Delay Over All Lanes(pcuHr): 7.73

Full Input Data And Results

Full Input Data And Results

Scenario 5: '2022 AM + Dev' (FG5: '2022 AM + Dev', Plan 1: 'Network Control Plan 1')

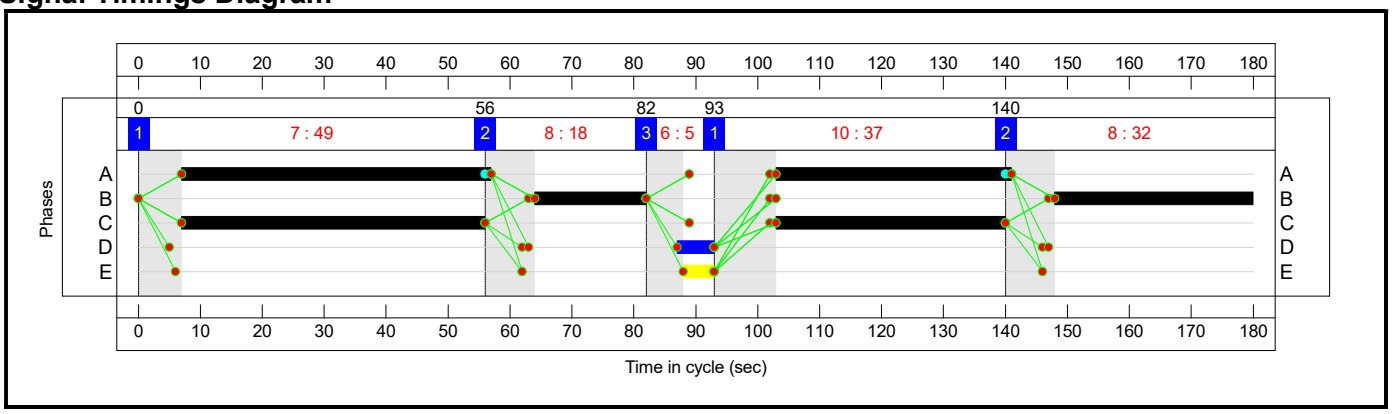
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	49	18	5	37	32
Change Point	0	56	82	93	140

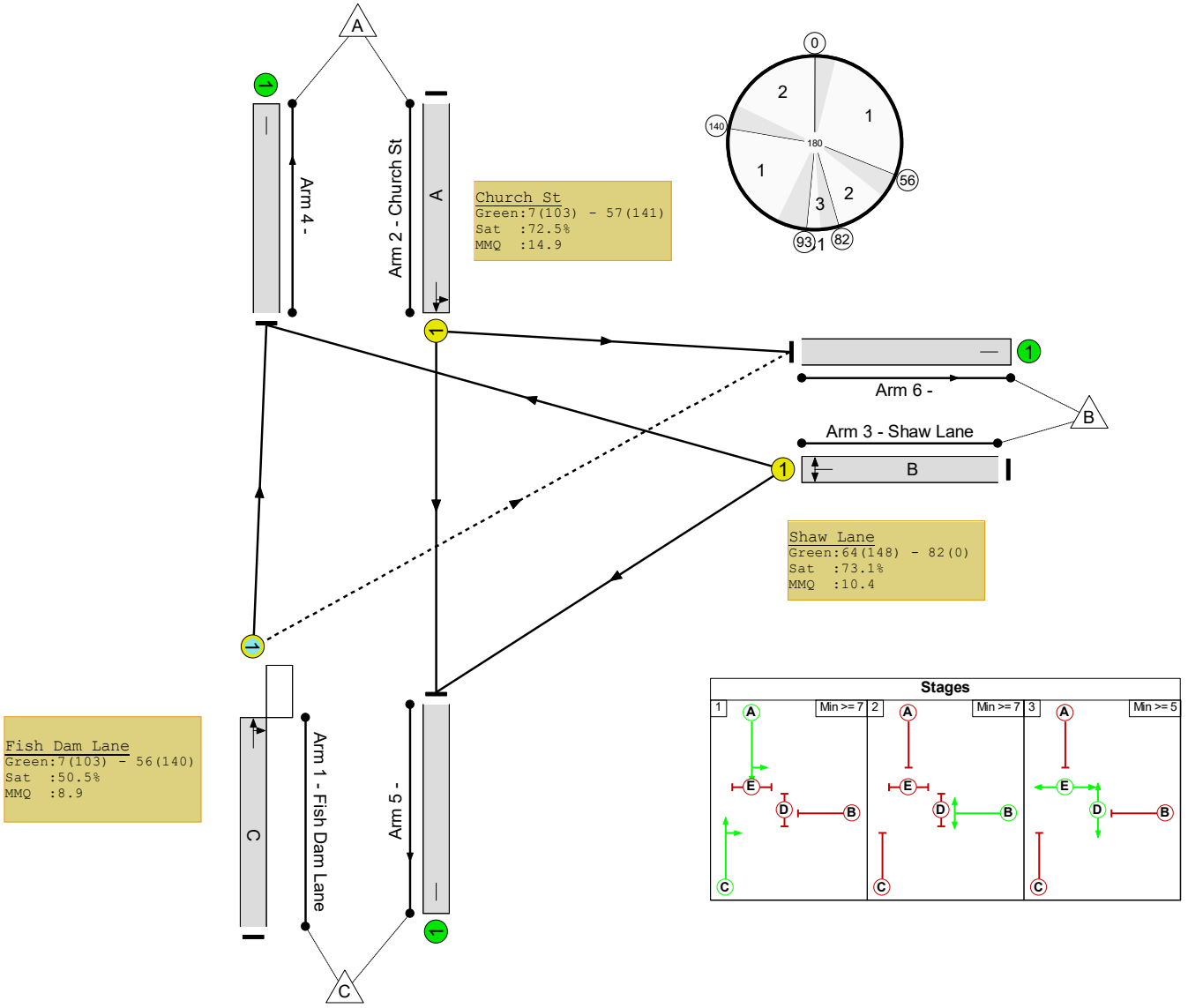
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 23.2 %
Total Traffic Delay: 12.2 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.1%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.1%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	86	-	503	2078	996	50.5%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	88	-	698	1925	962	72.5%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	50	-	400	1895	547	73.1%
4/1		U	N/A	N/A	-		-	-	-	739	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**56**	**0**	**0**	**8.8**	**3.1**	**0.2**	**12.2**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**56**	**0**	**0**	**8.8**	**3.1**	**0.2**	**12.2**	**-**	**-**	**-**	**-**
1/1	503	503	56	0	0	2.2	0.5	0.2	2.9	20.8	8.4	0.5	8.9
2/1	698	698	-	-	-	3.4	1.3	-	4.7	24.4	13.6	1.3	14.9
3/1	400	400	-	-	-	3.2	1.3	-	4.5	40.8	9.1	1.3	10.4
4/1	739	739	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

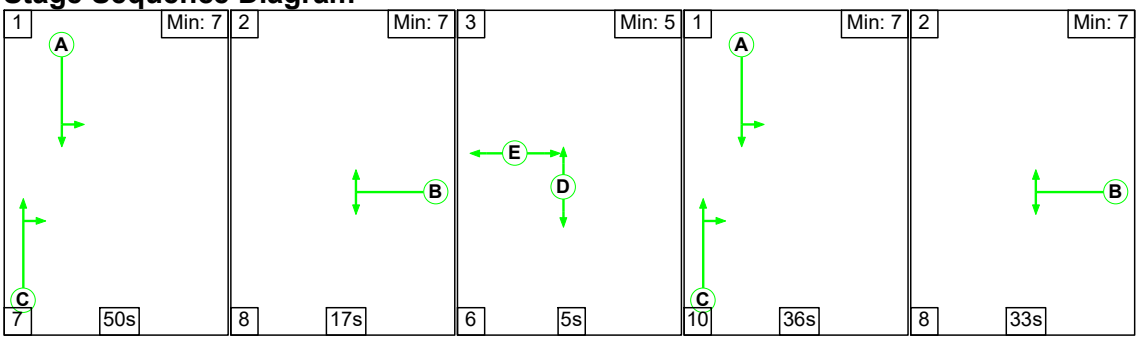
C1 PRC for Signalled Lanes (%): 23.2 Total Delay for Signalled Lanes (pcuHr): 12.18 Cycle Time (s): 180
PRC Over All Lanes (%): 23.2 Total Delay Over All Lanes(pcuHr): 12.18

Full Input Data And Results

Full Input Data And Results

Scenario 6: '2022 PM + Dev' (FG6: '2022 PM + Dev', Plan 1: 'Network Control Plan 1')

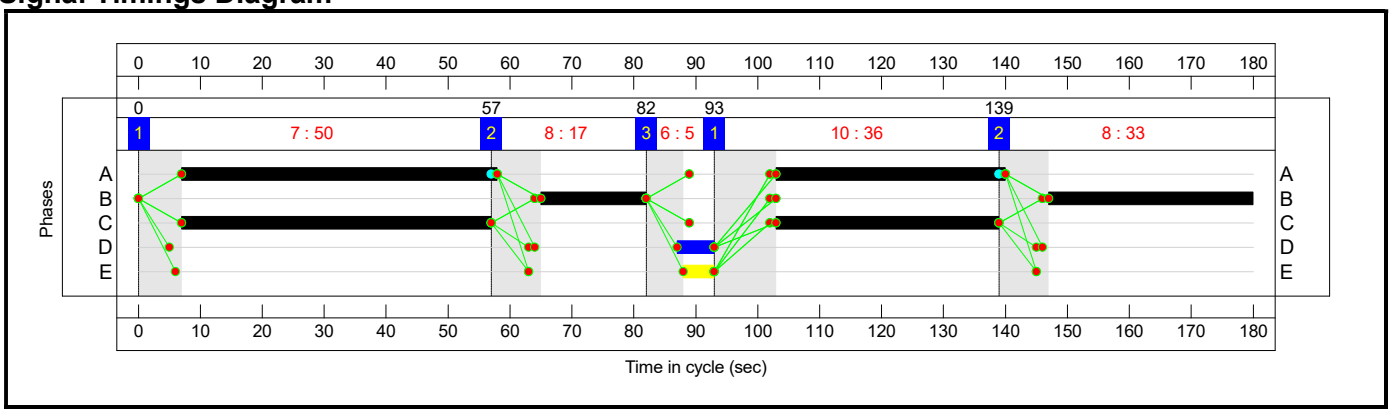
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	50	17	5	36	33
Change Point	0	57	82	93	139

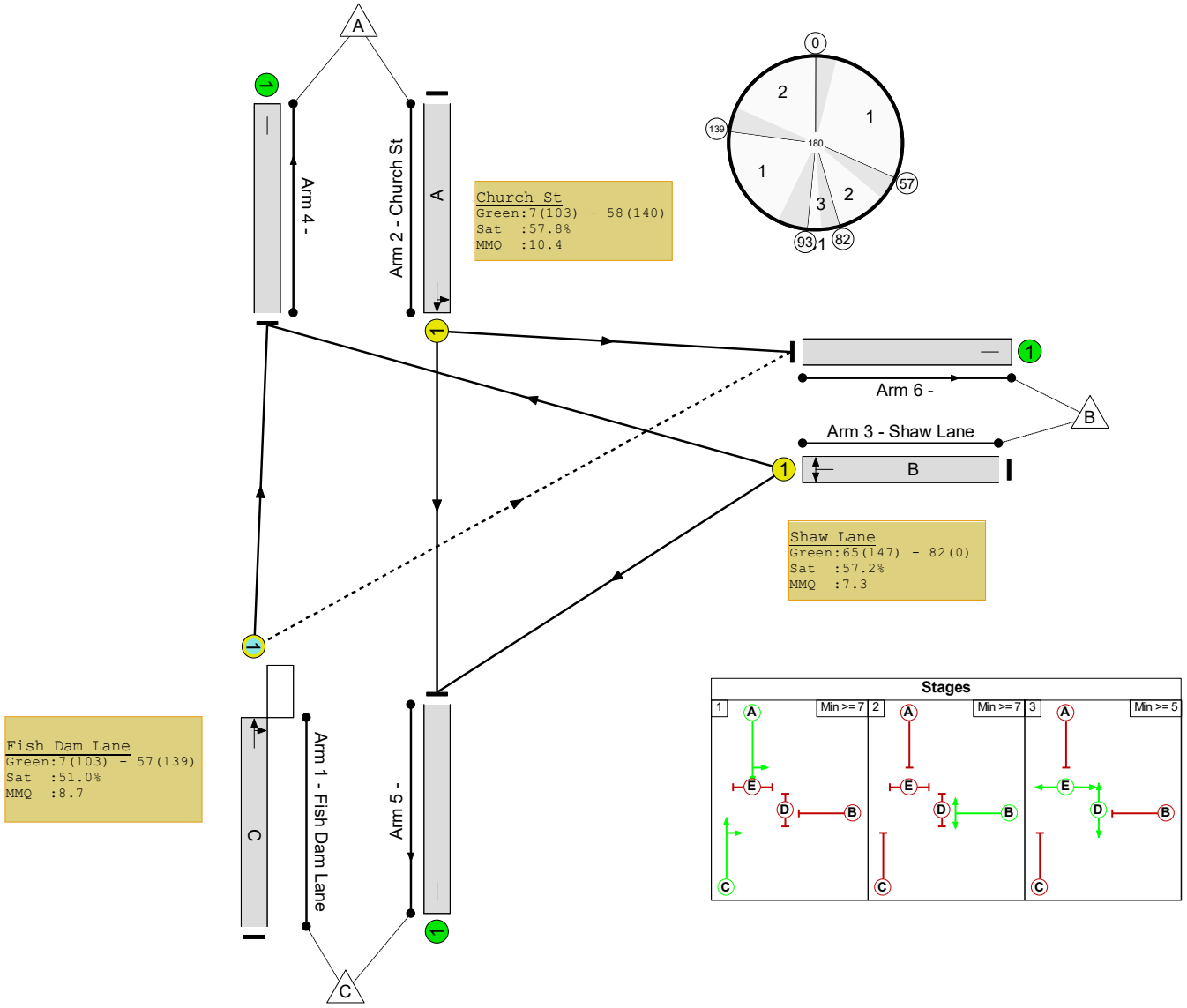
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 55.8 %
Total Traffic Delay: 9.0 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**57.8%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**57.8%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	86	-	480	2040	942	51.0%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	88	-	549	1901	951	57.8%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	50	-	314	1899	549	57.2%
4/1		U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	323	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**110**	**0**	**0**	**6.8**	**1.9**	**0.3**	**9.0**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**110**	**0**	**0**	**6.8**	**1.9**	**0.3**	**9.0**	**-**	**-**	**-**	**-**
1/1	480	480	110	0	0	2.1	0.5	0.3	2.9	21.7	8.1	0.5	8.7
2/1	549	549	-	-	-	2.4	0.7	-	3.1	20.3	9.8	0.7	10.4
3/1	314	314	-	-	-	2.4	0.7	-	3.0	34.9	6.6	0.7	7.3
4/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	323	323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

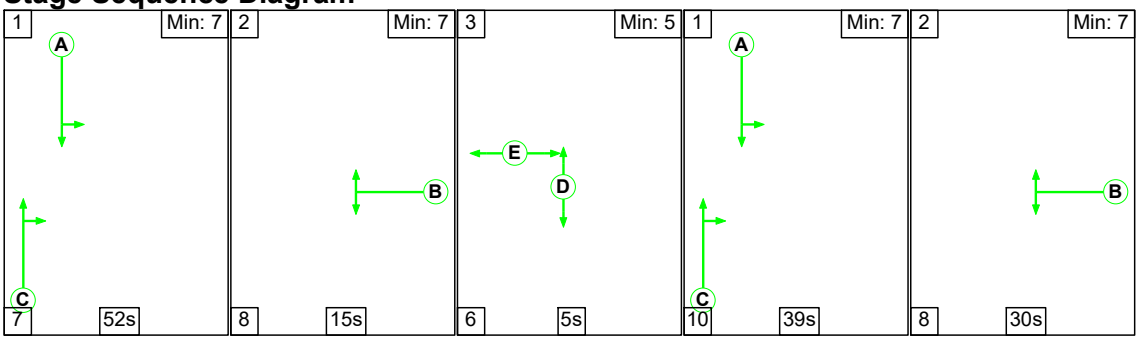
C1 PRC for Signalled Lanes (%): 55.8 Total Delay for Signalled Lanes (pcuHr): 9.03 Cycle Time (s): 180
PRC Over All Lanes (%): 55.8 Total Delay Over All Lanes(pcuHr): 9.03

Full Input Data And Results

Full Input Data And Results

Scenario 7: '2027 AM Without Development' (FG7: '2027 AM Without', Plan 1: 'Network Control Plan 1')

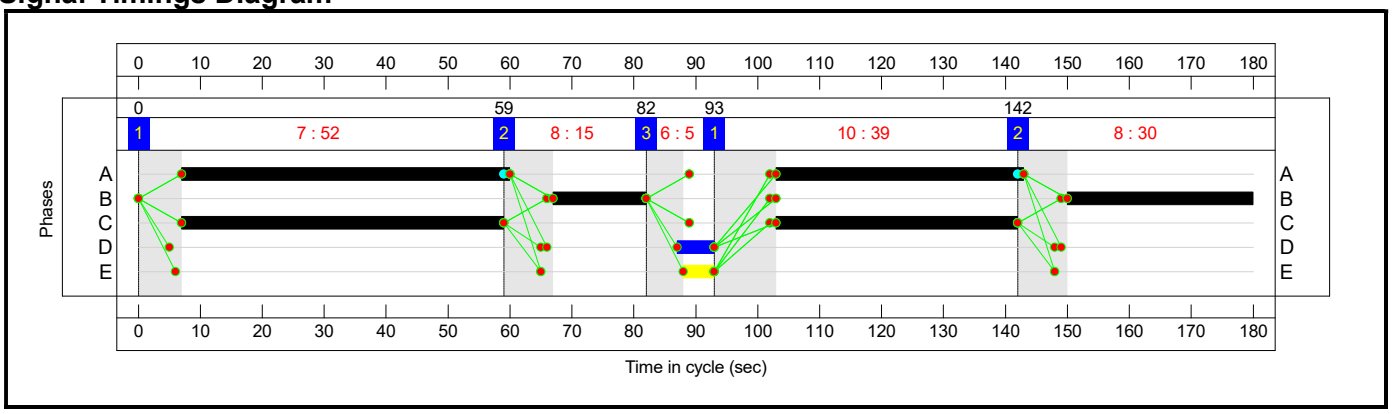
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	52	15	5	39	30
Change Point	0	59	82	93	142

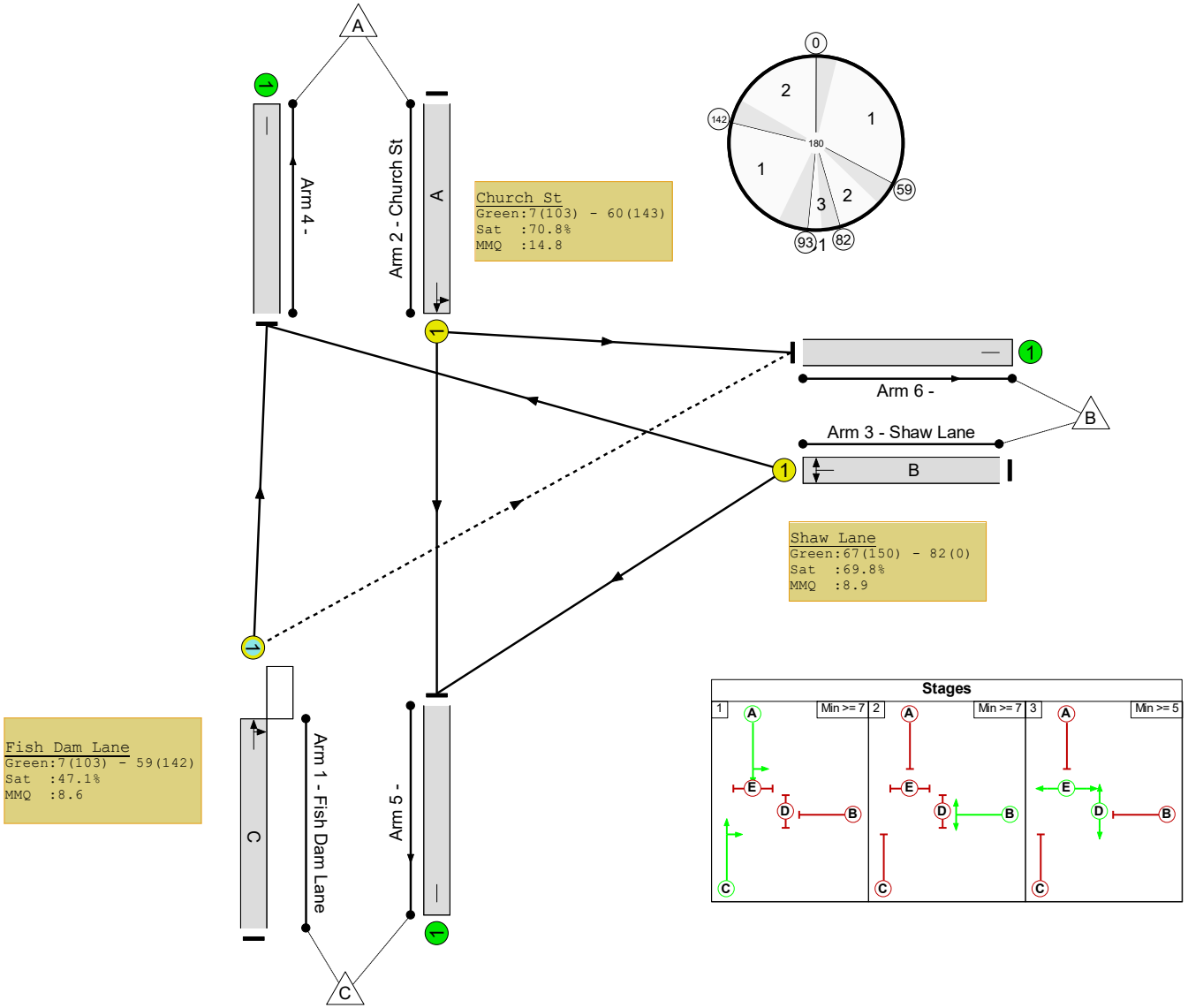
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 27.1 %
Total Traffic Delay: 11.0 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.8%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.8%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	91	-	508	2087	1078	47.1%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	93	-	720	1926	1016	70.8%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	45	-	346	1898	496	69.8%
4/1		U	N/A	N/A	-		-	-	-	746	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	522	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**43**	**0**	**0**	**8.1**	**2.8**	**0.2**	**11.0**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**43**	**0**	**0**	**8.1**	**2.8**	**0.2**	**11.0**	**-**	**-**	**-**	**-**
1/1	508	508	43	0	0	2.0	0.4	0.2	2.6	18.2	8.2	0.4	8.6
2/1	720	720	-	-	-	3.2	1.2	-	4.4	22.1	13.6	1.2	14.8
3/1	346	346	-	-	-	2.9	1.1	-	4.0	41.9	7.8	1.1	8.9
4/1	746	746	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

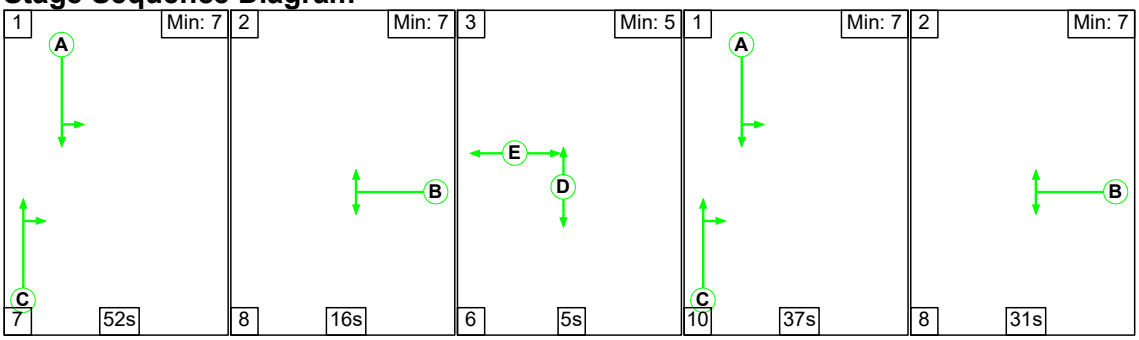
C1 PRC for Signalled Lanes (%): 27.1 Total Delay for Signalled Lanes (pcuHr): 11.01 Cycle Time (s): 180
PRC Over All Lanes (%): 27.1 Total Delay Over All Lanes(pcuHr): 11.01

Full Input Data And Results

Full Input Data And Results

Scenario 8: '2027 PM Without Development' (FG8: '2027 PM Without', Plan 1: 'Network Control Plan 1')

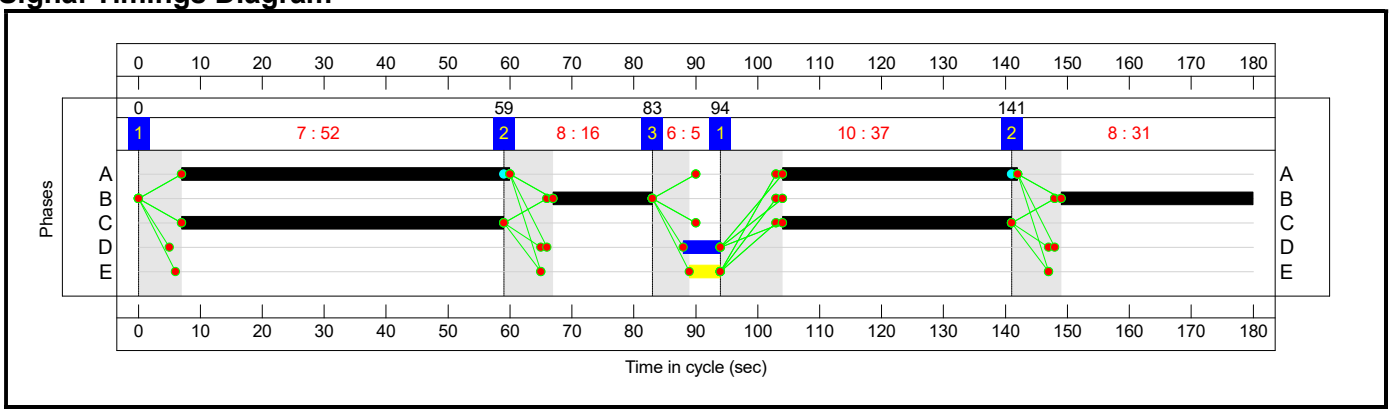
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	52	16	5	37	31
Change Point	0	59	83	94	141

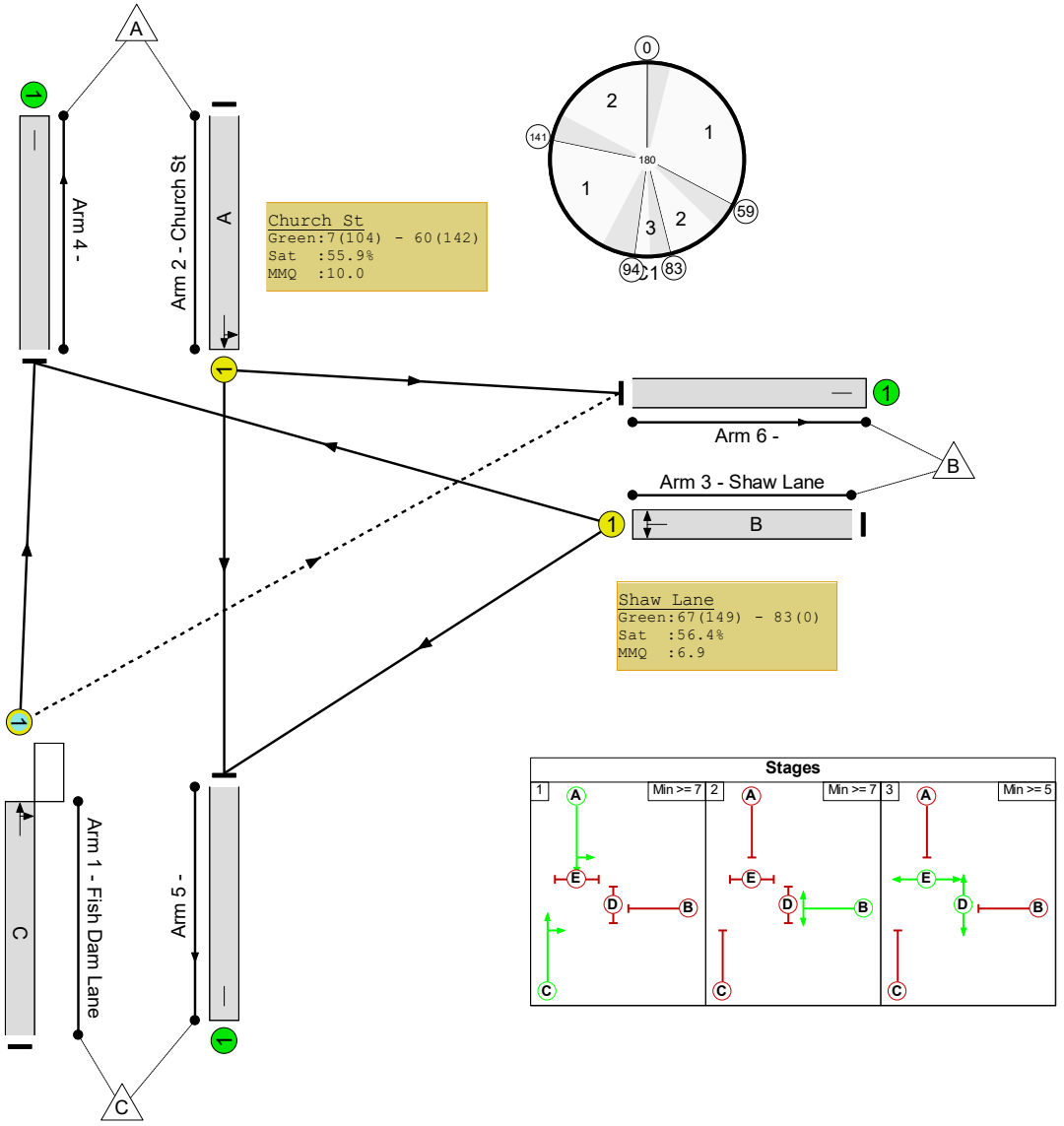
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 59.6 %
Total Traffic Delay: 8.2 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**56.4%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**56.4%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	89	-	454	2065	1031	44.1%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	91	-	550	1905	984	55.9%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	47	-	292	1902	518	56.4%
4/1		U	N/A	N/A	-		-	-	-	646	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**69**	**0**	**0**	**6.3**	**1.7**	**0.2**	**8.2**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**69**	**0**	**0**	**6.3**	**1.7**	**0.2**	**8.2**	**-**	**-**	**-**	**-**
1/1	454	454	69	0	0	1.8	0.4	0.2	2.3	18.6	7.2	0.4	7.6
2/1	550	550	-	-	-	2.3	0.6	-	2.9	18.9	9.3	0.6	10.0
3/1	292	292	-	-	-	2.3	0.6	-	2.9	36.1	6.2	0.6	6.9
4/1	646	646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

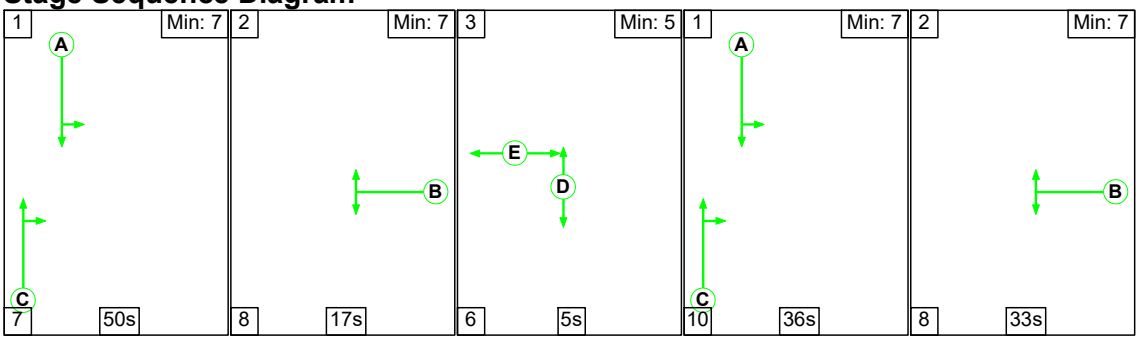
C1 PRC for Signalled Lanes (%): 59.6 Total Delay for Signalled Lanes (pcuHr): 8.16 Cycle Time (s): 180
PRC Over All Lanes (%): 59.6 Total Delay Over All Lanes(pcuHr): 8.16

Full Input Data And Results

Full Input Data And Results

Scenario 9: '2027 AM + Dev' (FG9: '2027 AM + Dev', Plan 1: 'Network Control Plan 1')

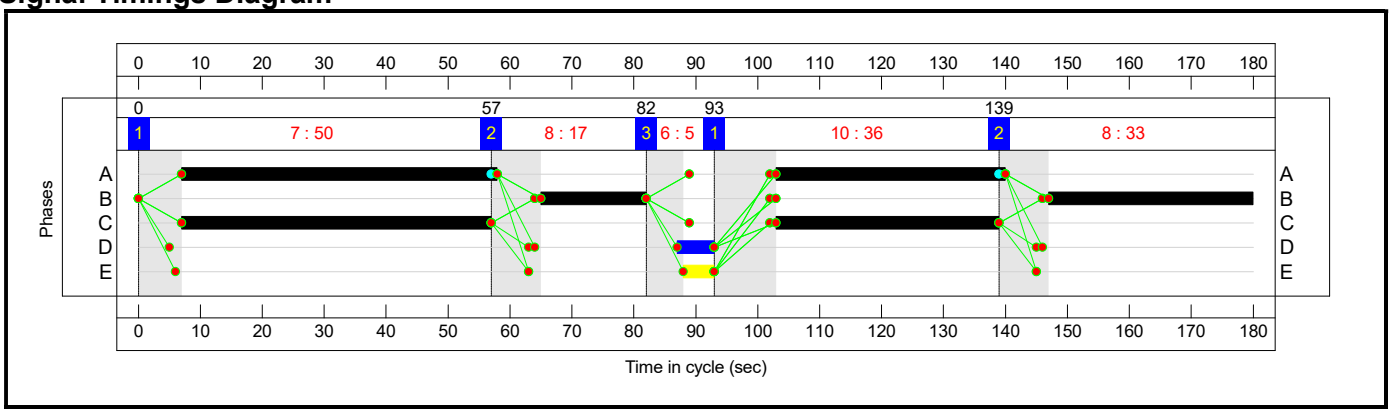
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	50	17	5	36	33
Change Point	0	57	82	93	139

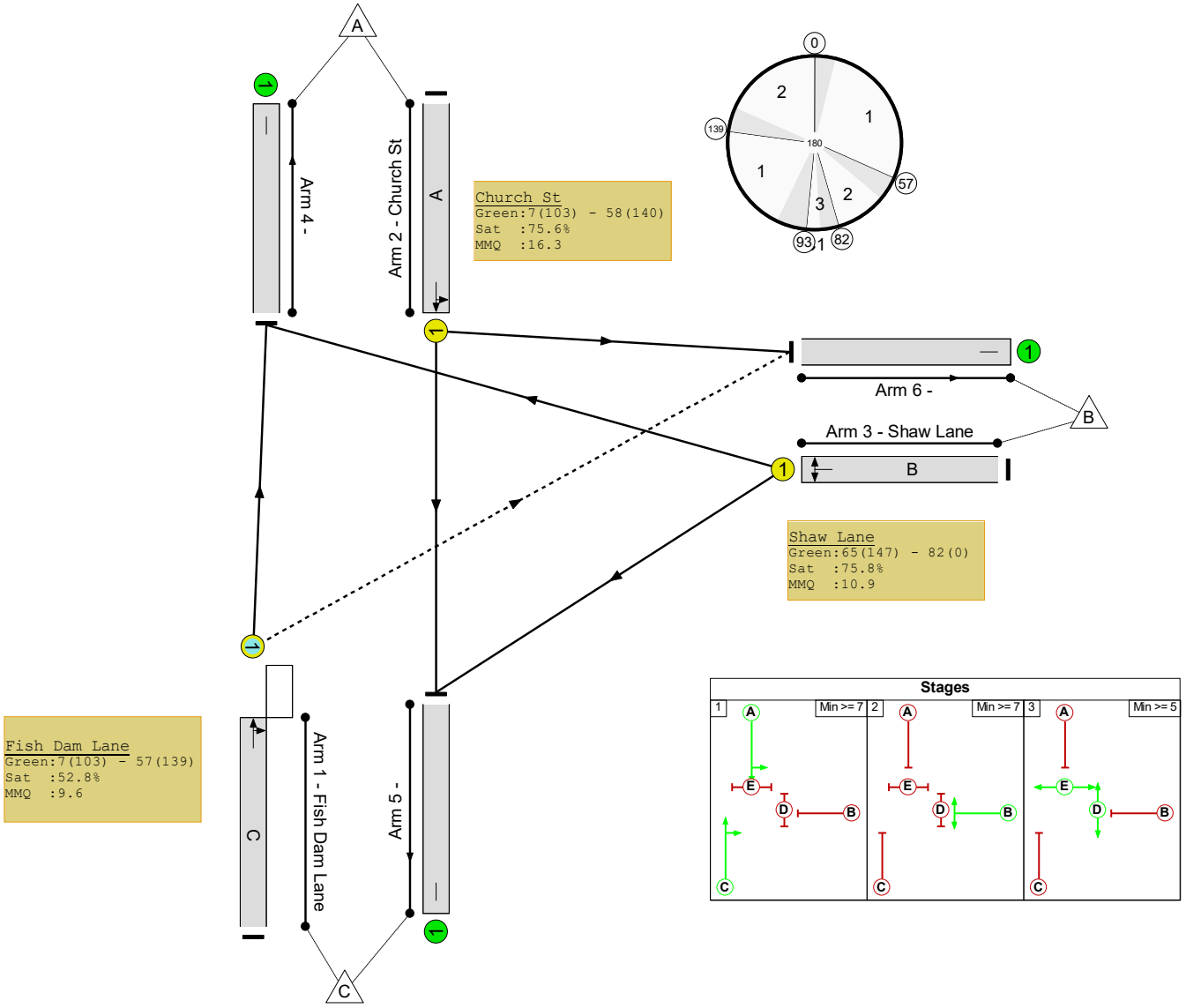
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 18.7 %
Total Traffic Delay: 13.2 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.8%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.8%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	86	-	523	2078	991	52.8%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	88	-	728	1925	962	75.6%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	50	-	415	1895	547	75.8%
4/1		U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	568	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	329	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**58**	**0**	**0**	**9.3**	**3.6**	**0.3**	**13.2**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**58**	**0**	**0**	**9.3**	**3.6**	**0.3**	**13.2**	**-**	**-**	**-**	**-**
1/1	523	523	58	0	0	2.3	0.6	0.3	3.1	21.4	9.0	0.6	9.6
2/1	728	728	-	-	-	3.7	1.5	-	5.2	25.7	14.8	1.5	16.3
3/1	415	415	-	-	-	3.4	1.5	-	4.9	42.4	9.3	1.5	10.9
4/1	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	568	568	-	-	-	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

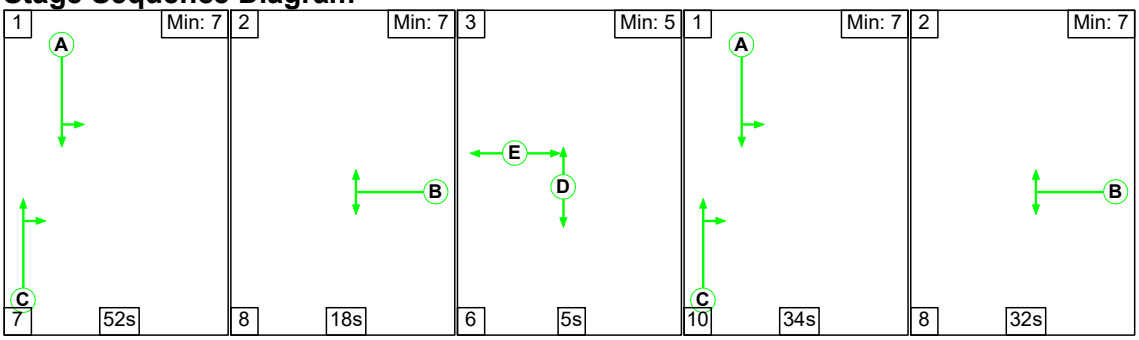
C1 PRC for Signalled Lanes (%): 18.7 Total Delay for Signalled Lanes (pcuHr): 13.19 Cycle Time (s): 180
PRC Over All Lanes (%): 18.7 Total Delay Over All Lanes(pcuHr): 13.19

Full Input Data And Results

Full Input Data And Results

Scenario 10: '2027 PM + Dev' (FG10: '2027 PM + Dev', Plan 1: 'Network Control Plan 1')

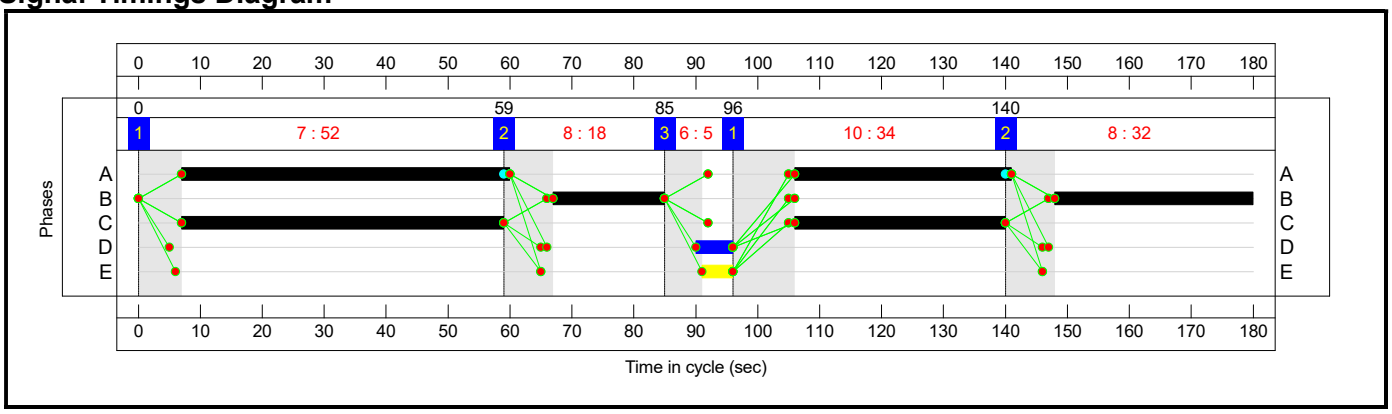
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	52	18	5	34	32
Change Point	0	59	85	96	140

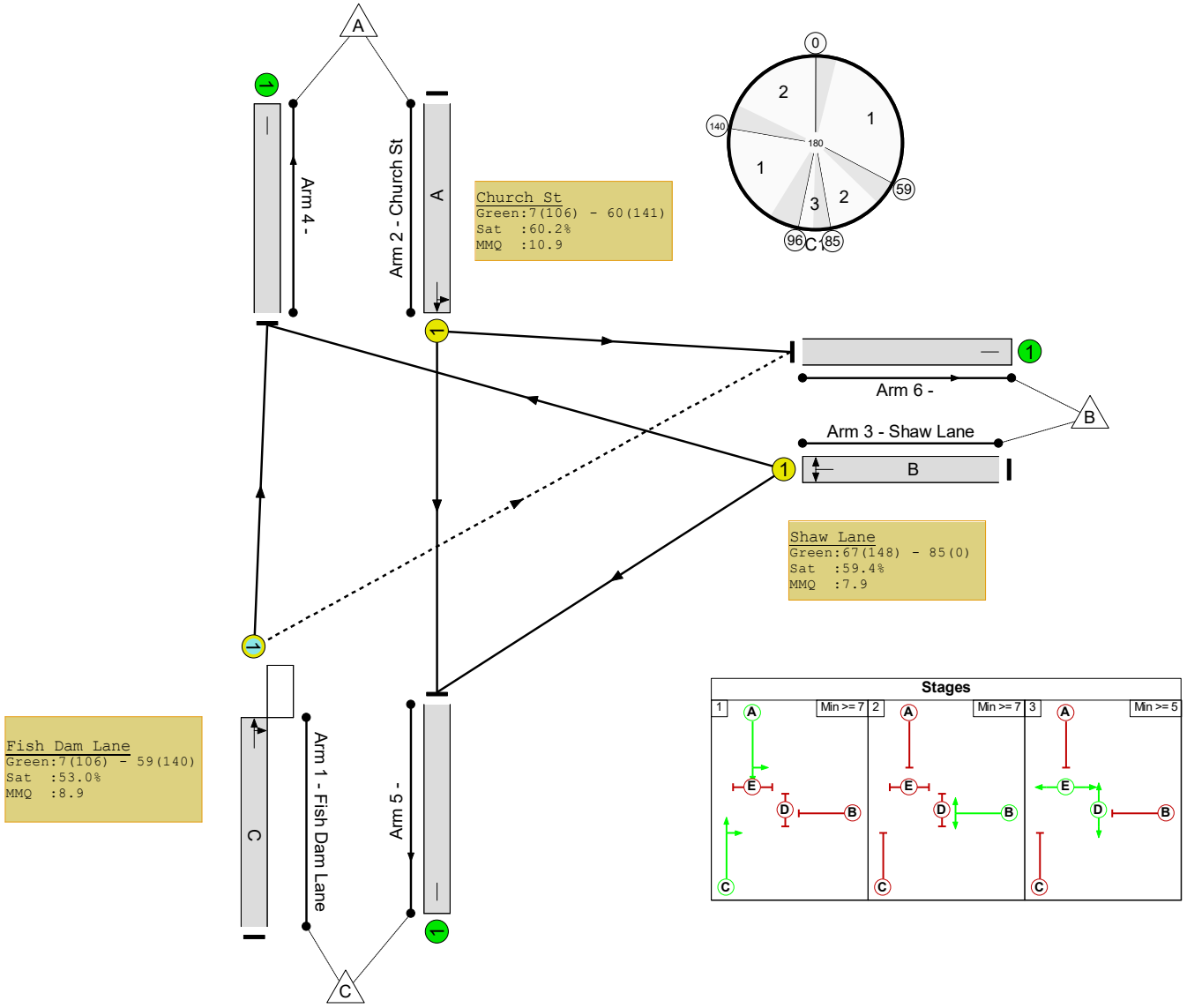
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Church St / Shaw Lane / Fish Dam Lane
PRC: 49.6 %
Total Traffic Delay: 9.6 pcuHr



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: Shaw Lane / Church St Signalisation	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.2%**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**60.2%**
1/1	Fish Dam Lane Ahead Right	O	N/A	N/A	C		2	86	-	498	2041	940	53.0%
2/1	Church St Ahead Left	U	N/A	N/A	A		2	88	-	572	1901	951	60.2%
3/1	Shaw Lane Right Left	U	N/A	N/A	B		2	50	-	326	1899	549	59.4%
4/1		U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shaw Lane / Church St Signalisation	**-**	**-**	**113**	**0**	**0**	**7.2**	**2.0**	**0.4**	**9.6**	**-**	**-**	**-**	**-**
Church St / Shaw Lane / Fish Dam Lane	**-**	**-**	**113**	**0**	**0**	**7.2**	**2.0**	**0.4**	**9.6**	**-**	**-**	**-**	**-**
1/1	498	498	113	0	0	2.2	0.6	0.4	3.1	22.2	8.3	0.6	8.9
2/1	572	572	-	-	-	2.6	0.8	-	3.3	20.8	10.2	0.8	10.9
3/1	326	326	-	-	-	2.5	0.7	-	3.2	35.5	7.2	0.7	7.9
4/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 49.6 Total Delay for Signalled Lanes (pcuHr): 9.60 Cycle Time (s): 180
PRC Over All Lanes (%): 49.6 Total Delay Over All Lanes(pcuHr): 9.60

Full Input Data And Results