

Belmont, Navan

Traffic and Transport Assessment

Appendix D&E

November 19

Prepared for:

Coindale Ltd.

Appendix D Modelling

Circular Road-Academy Street

Junctions 8
PICADY 8 - Priority Intersection Module
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Filename: J1 - Circular Road-Academy Street PICADY Model 2017 Base v2 (oct 2019).arc8
Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC2060\oct 2019\J1
Report generation date: 02/10/2019 12:06:11

- » Existing Layout - 2017 Base Year, AM
- » Existing Layout - 2017 Base Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
Existing Layout - 2017 Base Year								
Stream B-ACD	0.29	8.67	0.23	9.51	0.56	11.67	0.36	13.10
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.71	9.92	0.42		1.44	14.66	0.59	
Stream D-BC	0.17	9.71	0.14		0.30	10.98	0.23	
Stream C-ABD	0.01	7.02	0.01		0.03	7.03	0.03	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - 2017 Base Year, AM" model duration: 07:45 - 09:15
 "D2 - 2017 Base Year, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 02/10/2019 12:06:09

File summary

Title	J1 - Circular Road-Academy Street
Location	Navan, Ireland
Site Number	
Date	26/02/2019
Version	v1
Status	Preliminary
Identifier	
Client	4Way Consulting
Jobnumber	ADC2060
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2017 Base Year, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2017 Base Year, AM	2017 Base Year	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		9.51	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	404.00	100.000
B	ONE HOUR	✓	111.00	100.000
C	ONE HOUR	✓	153.00	100.000
D	ONE HOUR	✓	293.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	33.000	371.000	0.000
	B	21.000	0.000	90.000	0.000
	C	146.000	7.000	0.000	0.000
	D	227.000	17.000	49.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.19	0.00	0.81	0.00
	C	0.95	0.05	0.00	0.00
	D	0.77	0.06	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.23	8.67	0.29	A	101.86	152.78	20.20	7.93	0.22	20.20	7.93
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	30.28	45.42	-	-	-	-	-
A-C	-	-	-	-	340.44	510.65	-	-	-	-	-
D-AB	0.42	9.92	0.71	A	216.92	325.37	47.31	8.72	0.53	47.32	8.73
D-BC	0.14	9.71	0.17	A	51.95	77.92	11.73	9.03	0.13	11.73	9.03
C-ABD	0.01	7.02	0.01	A	6.42	9.64	1.10	6.83	0.01	1.10	6.83
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	133.97	200.96	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	83.57	20.89	82.90	0.00	576.78	0.145	0.00	0.17	7.280	A
A-BCD	0.00	0.00	0.00	0.00	583.34	0.000	0.00	0.00	0.000	A
A-B	24.84	6.21	24.84	0.00	-	-	-	-	-	-
A-C	279.31	69.83	279.31	0.00	-	-	-	-	-	-
D-AB	177.80	44.45	176.30	0.00	644.55	0.276	0.00	0.38	7.664	A
D-BC	42.78	10.70	42.38	0.00	466.76	0.092	0.00	0.10	8.475	A
C-ABD	5.27	1.32	5.23	0.00	547.62	0.010	0.00	0.01	6.636	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	109.92	27.48	109.92	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	99.79	24.95	99.60	0.00	560.34	0.178	0.17	0.21	7.810	A
A-BCD	0.00	0.00	0.00	0.00	578.97	0.000	0.00	0.00	0.000	A
A-B	29.67	7.42	29.67	0.00	-	-	-	-	-	-
A-C	333.52	83.38	333.52	0.00	-	-	-	-	-	-
D-AB	212.46	53.12	211.99	0.00	635.67	0.334	0.38	0.50	8.487	A
D-BC	50.94	12.73	50.84	0.00	452.52	0.113	0.10	0.13	8.960	A
C-ABD	6.29	1.57	6.28	0.00	536.33	0.012	0.01	0.01	6.791	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	131.25	32.81	131.25	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	122.21	30.55	121.91	0.00	537.27	0.227	0.21	0.29	8.661	A
A-BCD	0.00	0.00	0.00	0.00	572.94	0.000	0.00	0.00	0.000	A
A-B	36.33	9.08	36.33	0.00	-	-	-	-	-	-
A-C	408.48	102.12	408.48	0.00	-	-	-	-	-	-
D-AB	260.47	65.12	259.63	0.00	623.22	0.418	0.50	0.71	9.877	A
D-BC	62.13	15.53	61.97	0.00	432.93	0.144	0.13	0.17	9.700	A
C-ABD	7.71	1.93	7.69	0.00	520.71	0.015	0.01	0.01	7.016	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.75	40.19	160.75	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	122.21	30.55	122.21	0.00	537.19	0.228	0.29	0.29	8.674	A
A-BCD	0.00	0.00	0.00	0.00	572.94	0.000	0.00	0.00	0.000	A
A-B	36.33	9.08	36.33	0.00	-	-	-	-	-	-
A-C	408.48	102.12	408.48	0.00	-	-	-	-	-	-
D-AB	260.48	65.12	260.45	0.00	623.16	0.418	0.71	0.71	9.923	A
D-BC	62.12	15.53	62.12	0.00	432.87	0.144	0.17	0.17	9.709	A
C-ABD	7.71	1.93	7.71	0.00	520.71	0.015	0.01	0.01	7.016	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.75	40.19	160.75	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	99.79	24.95	100.08	0.00	560.22	0.178	0.29	0.22	7.828	A
A-BCD	0.00	0.00	0.00	0.00	578.97	0.000	0.00	0.00	0.000	A
A-B	29.67	7.42	29.67	0.00	-	-	-	-	-	-
A-C	333.52	83.38	333.52	0.00	-	-	-	-	-	-
D-AB	212.47	53.12	213.28	0.00	635.56	0.334	0.71	0.51	8.543	A
D-BC	50.93	12.73	51.09	0.00	452.43	0.113	0.17	0.13	8.972	A
C-ABD	6.29	1.57	6.30	0.00	536.33	0.012	0.01	0.01	6.791	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	131.25	32.81	131.25	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	83.57	20.89	83.76	0.00	576.61	0.145	0.22	0.17	7.309	A
A-BCD	0.00	0.00	0.00	0.00	583.33	0.000	0.00	0.00	0.000	A
A-B	24.84	6.21	24.84	0.00	-	-	-	-	-	-
A-C	279.31	69.83	279.31	0.00	-	-	-	-	-	-
D-AB	177.81	44.45	178.30	0.00	644.36	0.276	0.51	0.39	7.732	A
D-BC	42.78	10.69	42.88	0.00	466.61	0.092	0.13	0.10	8.497	A
C-ABD	5.27	1.32	5.28	0.00	547.62	0.010	0.01	0.01	6.639	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	109.92	27.48	109.92	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.43	0.16	7.280	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	5.42	0.36	7.664	A	A
D-BC	1.44	0.10	8.475	A	A
C-ABD	0.14	0.01	6.636	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.14	0.21	7.810	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.22	0.48	8.487	A	A
D-BC	1.84	0.12	8.960	A	A
C-ABD	0.18	0.01	6.791	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.25	0.28	8.661	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.19	0.68	9.877	A	A
D-BC	2.42	0.16	9.700	A	A
C-ABD	0.22	0.01	7.016	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.38	0.29	8.674	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.64	0.71	9.923	A	A
D-BC	2.49	0.17	9.709	A	A
C-ABD	0.23	0.02	7.016	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.37	0.22	7.828	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.89	0.53	8.543	A	A
D-BC	1.97	0.13	8.972	A	A
C-ABD	0.18	0.01	6.791	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.63	0.18	7.309	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	5.94	0.40	7.732	A	A
D-BC	1.57	0.10	8.497	A	A
C-ABD	0.15	0.01	6.639	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2017 Base Year, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2017 Base Year, PM	2017 Base Year	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		13.10	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	367.00	100.000
B	ONE HOUR	✓	158.00	100.000
C	ONE HOUR	✓	176.00	100.000
D	ONE HOUR	✓	415.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	27.000	340.000	0.000
	B	55.000	0.000	103.000	0.000
	C	161.000	15.000	0.000	0.000
	D	311.000	25.000	79.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.35	0.00	0.65	0.00
	C	0.91	0.09	0.00	0.00
	D	0.75	0.06	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.36	11.67	0.56	B	144.98	217.48	36.48	10.07	0.41	36.49	10.07
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	24.78	37.16	-	-	-	-	-
A-C	-	-	-	-	311.99	467.98	-	-	-	-	-
D-AB	0.59	14.66	1.44	B	298.82	448.22	87.09	11.66	0.97	87.10	11.66
D-BC	0.23	10.98	0.30	B	81.99	122.99	20.42	9.96	0.23	20.43	9.96
C-ABD	0.03	7.03	0.03	A	13.76	20.65	2.35	6.84	0.03	2.35	6.84
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	147.74	221.60	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	118.95	29.74	117.81	0.00	532.28	0.223	0.00	0.28	8.663	A
A-BCD	0.00	0.00	0.00	0.00	579.54	0.000	0.00	0.00	0.000	A
A-B	20.33	5.08	20.33	0.00	-	-	-	-	-	-
A-C	255.97	63.99	255.97	0.00	-	-	-	-	-	-
D-AB	244.76	61.19	242.28	0.00	632.16	0.387	0.00	0.62	9.178	A
D-BC	67.67	16.92	66.99	0.00	462.05	0.146	0.00	0.17	9.097	A
C-ABD	11.29	2.82	11.21	0.00	552.95	0.020	0.00	0.02	6.645	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	142.04	35.51	141.66	0.00	511.69	0.278	0.28	0.38	9.719	A
A-BCD	0.00	0.00	0.00	0.00	574.41	0.000	0.00	0.00	0.000	A
A-B	24.27	6.07	24.27	0.00	-	-	-	-	-	-
A-C	305.65	76.41	305.65	0.00	-	-	-	-	-	-
D-AB	292.63	73.16	291.62	0.00	620.59	0.472	0.62	0.87	10.907	B
D-BC	80.45	20.11	80.26	0.00	446.77	0.180	0.17	0.22	9.817	A
C-ABD	13.48	3.37	13.47	0.00	542.69	0.025	0.02	0.03	6.801	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	173.96	43.49	173.26	0.00	482.62	0.360	0.38	0.55	11.610	B
A-BCD	0.00	0.00	0.00	0.00	567.36	0.000	0.00	0.00	0.000	A
A-B	29.73	7.43	29.73	0.00	-	-	-	-	-	-
A-C	374.35	93.59	374.35	0.00	-	-	-	-	-	-
D-AB	359.03	89.76	356.89	0.00	604.38	0.594	0.87	1.41	14.417	B
D-BC	97.89	24.47	97.58	0.00	425.78	0.230	0.22	0.29	10.959	B
C-ABD	16.52	4.13	16.49	0.00	528.51	0.031	0.03	0.03	7.030	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	173.96	43.49	173.94	0.00	482.30	0.361	0.55	0.56	11.672	B
A-BCD	0.00	0.00	0.00	0.00	567.35	0.000	0.00	0.00	0.000	A
A-B	29.73	7.43	29.73	0.00	-	-	-	-	-	-
A-C	374.35	93.59	374.35	0.00	-	-	-	-	-	-
D-AB	359.04	89.76	358.94	0.00	604.24	0.594	1.41	1.44	14.658	B
D-BC	97.88	24.47	97.87	0.00	425.67	0.230	0.29	0.30	10.982	B
C-ABD	16.52	4.13	16.51	0.00	528.51	0.031	0.03	0.03	7.030	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	142.04	35.51	142.71	0.00	511.24	0.278	0.56	0.39	9.788	A
A-BCD	0.00	0.00	0.00	0.00	574.40	0.000	0.00	0.00	0.000	A
A-B	24.27	6.07	24.27	0.00	-	-	-	-	-	-
A-C	305.65	76.41	305.65	0.00	-	-	-	-	-	-
D-AB	292.64	73.16	294.74	0.00	620.38	0.472	1.44	0.91	11.126	B
D-BC	80.43	20.11	80.73	0.00	446.59	0.180	0.30	0.22	9.847	A
C-ABD	13.48	3.37	13.51	0.00	542.69	0.025	0.03	0.03	6.805	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	118.95	29.74	119.35	0.00	531.76	0.224	0.39	0.29	8.737	A
A-BCD	0.00	0.00	0.00	0.00	579.51	0.000	0.00	0.00	0.000	A
A-B	20.33	5.08	20.33	0.00	-	-	-	-	-	-
A-C	255.97	63.99	255.97	0.00	-	-	-	-	-	-
D-AB	244.78	61.20	245.86	0.00	631.82	0.387	0.91	0.64	9.353	A
D-BC	67.65	16.91	67.85	0.00	461.79	0.147	0.22	0.17	9.142	A
C-ABD	11.29	2.82	11.31	0.00	552.95	0.020	0.03	0.02	6.645	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.09	0.27	8.663	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.85	0.59	9.178	A	A
D-BC	2.44	0.16	9.097	A	A
C-ABD	0.31	0.02	6.645	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.51	0.37	9.719	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.57	0.84	10.907	B	B
D-BC	3.17	0.21	9.817	A	A
C-ABD	0.38	0.03	6.801	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.97	0.53	11.610	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	19.87	1.32	14.417	B	B
D-BC	4.27	0.28	10.959	B	B
C-ABD	0.48	0.03	7.030	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	8.34	0.56	11.672	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	21.39	1.43	14.658	B	B
D-BC	4.43	0.30	10.982	B	B
C-ABD	0.48	0.03	7.030	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.07	0.40	9.788	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	14.39	0.96	11.126	B	B
D-BC	3.44	0.23	9.847	A	A
C-ABD	0.38	0.03	6.805	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.50	0.30	8.737	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.01	0.67	9.353	A	A
D-BC	2.67	0.18	9.142	A	A
C-ABD	0.31	0.02	6.645	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

<h1>Junctions 8</h1>
<h2>PICADY 8 - Priority Intersection Module</h2>
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Filename: J1 - Circular Road-Academy Street PICADY Model 2022 Opening Year V2 (oct 2019).arc8

Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC2060\oct 2019\J1

Report generation date: 02/10/2019 12:03:30

- » Existing Layout - 2022 Opening Year (Without Dev), AM
- » Existing Layout - 2022 Opening Year (Without Dev), PM
- » Existing Layout - 2022 Opening Year (With Dev), AM
- » Existing Layout - 2022 Opening Year (With Dev), PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
Existing Layout - 2022 Opening Year (With Dev)								
Stream B-ACD	1.75	21.81	0.64	15.71	1.16	17.56	0.54	16.42
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.83	10.83	0.46		1.83	17.52	0.65	
Stream D-BC	0.20	10.68	0.17		0.35	11.85	0.26	
Stream C-ABD	0.02	7.32	0.02		0.05	7.32	0.04	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	
Existing Layout - 2022 Opening Year (Without Dev)								
Stream B-ACD	0.32	8.95	0.24	9.88	0.62	12.37	0.39	14.17
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.78	10.39	0.44		1.66	16.15	0.63	
Stream D-BC	0.18	9.92	0.15		0.32	11.34	0.24	
Stream C-ABD	0.02	7.08	0.01		0.03	7.10	0.03	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D3 - 2022 Opening Year (Without Dev), AM" model duration: 07:45 - 09:15

"D4 - 2022 Opening Year (Without Dev), PM" model duration: 16:45 - 18:15

"D5 - 2022 Opening Year (With Dev), AM" model duration: 07:45 - 09:15

"D6 - 2022 Opening Year (With Dev), PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 02/10/2019 12:03:26

File summary

Title	J1 - Circular Road-Academy Street
Location	Navan, Ireland
Site Number	
Date	26/02/2019
Version	v1
Status	Preliminary
Identifier	
Client	4Way Consulting
Jobnumber	ADC2060
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2022 Opening Year (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2022 Opening Year (Without Dev), AM	2022 Opening Year (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		9.88	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	425.00	100.000
B	ONE HOUR	✓	117.00	100.000
C	ONE HOUR	✓	160.00	100.000
D	ONE HOUR	✓	307.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	35.000	390.000	0.000
	B	22.000	0.000	95.000	0.000
	C	153.000	7.000	0.000	0.000
	D	238.000	18.000	51.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.19	0.00	0.81	0.00
	C	0.96	0.04	0.00	0.00
	D	0.78	0.06	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.24	8.95	0.32	A	107.36	161.04	21.81	8.13	0.24	21.82	8.13
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	32.12	48.17	-	-	-	-	-
A-C	-	-	-	-	357.87	536.81	-	-	-	-	-
D-AB	0.44	10.39	0.78	B	227.56	341.34	51.39	9.03	0.57	51.40	9.03
D-BC	0.15	9.92	0.18	A	54.15	81.22	12.44	9.19	0.14	12.44	9.19
C-ABD	0.01	7.08	0.02	A	6.42	9.64	1.10	6.88	0.01	1.10	6.88
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	140.40	210.59	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	88.08	22.02	87.36	0.00	572.88	0.154	0.00	0.18	7.404	A
A-BCD	0.00	0.00	0.00	0.00	582.34	0.000	0.00	0.00	0.000	A
A-B	26.35	6.59	26.35	0.00	-	-	-	-	-	-
A-C	293.61	73.40	293.61	0.00	-	-	-	-	-	-
D-AB	186.52	46.63	184.90	0.00	642.38	0.290	0.00	0.40	7.842	A
D-BC	44.61	11.15	44.19	0.00	463.14	0.096	0.00	0.11	8.584	A
C-ABD	5.27	1.32	5.23	0.00	544.60	0.010	0.00	0.01	6.674	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	115.19	28.80	115.19	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	105.18	26.30	104.98	0.00	555.54	0.189	0.18	0.23	7.987	A
A-BCD	0.00	0.00	0.00	0.00	577.77	0.000	0.00	0.00	0.000	A
A-B	31.46	7.87	31.46	0.00	-	-	-	-	-	-
A-C	350.60	87.65	350.60	0.00	-	-	-	-	-	-
D-AB	222.89	55.72	222.36	0.00	633.02	0.352	0.40	0.54	8.755	A
D-BC	53.10	13.28	52.99	0.00	448.18	0.118	0.11	0.13	9.108	A
C-ABD	6.29	1.57	6.28	0.00	532.72	0.012	0.01	0.01	6.837	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	137.54	34.39	137.54	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	128.82	32.20	128.48	0.00	531.18	0.243	0.23	0.32	8.932	A
A-BCD	0.00	0.00	0.00	0.00	571.47	0.000	0.00	0.00	0.000	A
A-B	38.54	9.63	38.54	0.00	-	-	-	-	-	-
A-C	429.40	107.35	429.40	0.00	-	-	-	-	-	-
D-AB	273.27	68.32	272.32	0.00	619.88	0.441	0.54	0.77	10.328	B
D-BC	64.74	16.19	64.57	0.00	427.60	0.151	0.13	0.18	9.912	A
C-ABD	7.71	1.93	7.69	0.00	516.29	0.015	0.01	0.02	7.077	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	168.46	42.11	168.46	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	128.82	32.20	128.81	0.00	531.10	0.243	0.32	0.32	8.948	A
A-BCD	0.00	0.00	0.00	0.00	571.46	0.000	0.00	0.00	0.000	A
A-B	38.54	9.63	38.54	0.00	-	-	-	-	-	-
A-C	429.40	107.35	429.40	0.00	-	-	-	-	-	-
D-AB	273.28	68.32	273.25	0.00	619.81	0.441	0.77	0.78	10.386	B
D-BC	64.74	16.18	64.73	0.00	427.54	0.151	0.18	0.18	9.922	A
C-ABD	7.71	1.93	7.71	0.00	516.29	0.015	0.02	0.02	7.077	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	168.46	42.11	168.46	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	105.18	26.30	105.51	0.00	555.41	0.189	0.32	0.24	8.007	A
A-BCD	0.00	0.00	0.00	0.00	577.76	0.000	0.00	0.00	0.000	A
A-B	31.46	7.87	31.46	0.00	-	-	-	-	-	-
A-C	350.60	87.65	350.60	0.00	-	-	-	-	-	-
D-AB	222.89	55.72	223.81	0.00	632.90	0.352	0.78	0.55	8.819	A
D-BC	53.10	13.27	53.26	0.00	448.09	0.119	0.18	0.14	9.121	A
C-ABD	6.29	1.57	6.31	0.00	532.72	0.012	0.02	0.01	6.840	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	137.54	34.39	137.54	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	88.08	22.02	88.29	0.00	572.69	0.154	0.24	0.18	7.437	A
A-BCD	0.00	0.00	0.00	0.00	582.32	0.000	0.00	0.00	0.000	A
A-B	26.35	6.59	26.35	0.00	-	-	-	-	-	-
A-C	293.61	73.40	293.61	0.00	-	-	-	-	-	-
D-AB	186.53	46.63	187.07	0.00	642.17	0.290	0.55	0.41	7.919	A
D-BC	44.60	11.15	44.71	0.00	462.98	0.096	0.14	0.11	8.610	A
C-ABD	5.27	1.32	5.28	0.00	544.60	0.010	0.01	0.01	6.674	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	115.19	28.80	115.19	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.60	0.17	7.404	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	5.81	0.39	7.842	A	A
D-BC	1.52	0.10	8.584	A	A
C-ABD	0.14	0.01	6.674	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.38	0.23	7.987	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.80	0.52	8.755	A	A
D-BC	1.95	0.13	9.108	A	A
C-ABD	0.18	0.01	6.837	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.61	0.31	8.932	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.15	0.74	10.328	B	B
D-BC	2.57	0.17	9.912	A	A
C-ABD	0.23	0.02	7.077	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.76	0.32	8.948	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.67	0.78	10.386	B	B
D-BC	2.65	0.18	9.922	A	A
C-ABD	0.23	0.02	7.077	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.64	0.24	8.007	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.57	0.57	8.819	A	A
D-BC	2.09	0.14	9.121	A	A
C-ABD	0.18	0.01	6.840	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.82	0.19	7.437	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.40	0.43	7.919	A	A
D-BC	1.65	0.11	8.610	A	A
C-ABD	0.15	0.01	6.674	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2022 Opening Year (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 Opening Year (Without Dev), PM	2022 Opening Year (Without Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		14.17	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	385.00	100.000
B	ONE HOUR	✓	166.00	100.000
C	ONE HOUR	✓	185.00	100.000
D	ONE HOUR	✓	436.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	28.000	357.000	0.000
	B	58.000	0.000	108.000	0.000
	C	169.000	16.000	0.000	0.000
	D	327.000	26.000	83.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.35	0.00	0.65	0.00
	C	0.91	0.09	0.00	0.00
	D	0.75	0.06	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.39	12.37	0.62	B	152.32	228.49	40.05	10.52	0.44	40.05	10.52
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	25.69	38.54	-	-	-	-	-
A-C	-	-	-	-	327.59	491.38	-	-	-	-	-
D-AB	0.63	16.15	1.66	C	314.17	471.25	98.09	12.49	1.09	98.11	12.49
D-BC	0.24	11.34	0.32	B	85.92	128.87	21.96	10.22	0.24	21.96	10.22
C-ABD	0.03	7.10	0.03	A	14.68	22.02	2.53	6.89	0.03	2.53	6.89
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	155.08	232.62	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	124.97	31.24	123.75	0.00	526.76	0.237	0.00	0.31	8.907	A
A-BCD	0.00	0.00	0.00	0.00	578.18	0.000	0.00	0.00	0.000	A
A-B	21.08	5.27	21.08	0.00	-	-	-	-	-	-
A-C	268.77	67.19	268.77	0.00	-	-	-	-	-	-
D-AB	257.31	64.33	254.59	0.00	629.41	0.409	0.00	0.68	9.538	A
D-BC	70.93	17.73	70.21	0.00	458.12	0.155	0.00	0.18	9.264	A
C-ABD	12.05	3.01	11.96	0.00	550.36	0.022	0.00	0.02	6.686	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	127.23	31.81	127.23	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	149.23	37.31	148.81	0.00	504.94	0.296	0.31	0.41	10.096	B
A-BCD	0.00	0.00	0.00	0.00	572.79	0.000	0.00	0.00	0.000	A
A-B	25.17	6.29	25.17	0.00	-	-	-	-	-	-
A-C	320.94	80.23	320.94	0.00	-	-	-	-	-	-
D-AB	307.65	76.91	306.49	0.00	617.18	0.498	0.68	0.97	11.541	B
D-BC	84.30	21.08	84.10	0.00	442.06	0.191	0.18	0.23	10.049	B
C-ABD	14.38	3.60	14.36	0.00	539.60	0.027	0.02	0.03	6.853	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.93	37.98	151.93	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	182.77	45.69	181.96	0.00	474.02	0.386	0.41	0.61	12.292	B
A-BCD	0.00	0.00	0.00	0.00	565.37	0.000	0.00	0.00	0.000	A
A-B	30.83	7.71	30.83	0.00	-	-	-	-	-	-
A-C	393.06	98.27	393.06	0.00	-	-	-	-	-	-
D-AB	377.51	94.38	374.90	0.00	600.00	0.629	0.97	1.62	15.803	C
D-BC	102.53	25.63	102.19	0.00	419.98	0.244	0.23	0.32	11.315	B
C-ABD	17.62	4.40	17.59	0.00	524.72	0.034	0.03	0.03	7.098	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	186.07	46.52	186.07	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	182.77	45.69	182.74	0.00	473.63	0.386	0.61	0.62	12.374	B
A-BCD	0.00	0.00	0.00	0.00	565.36	0.000	0.00	0.00	0.000	A
A-B	30.83	7.71	30.83	0.00	-	-	-	-	-	-
A-C	393.06	98.27	393.06	0.00	-	-	-	-	-	-
D-AB	377.52	94.38	377.38	0.00	599.85	0.629	1.62	1.66	16.153	C
D-BC	102.52	25.63	102.51	0.00	419.85	0.244	0.32	0.32	11.344	B
C-ABD	17.62	4.40	17.62	0.00	524.72	0.034	0.03	0.03	7.098	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	186.07	46.52	186.07	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	149.23	37.31	150.01	0.00	504.39	0.296	0.62	0.43	10.180	B
A-BCD	0.00	0.00	0.00	0.00	572.78	0.000	0.00	0.00	0.000	A
A-B	25.17	6.29	25.17	0.00	-	-	-	-	-	-
A-C	320.94	80.23	320.94	0.00	-	-	-	-	-	-
D-AB	307.67	76.92	310.23	0.00	616.94	0.499	1.66	1.02	11.834	B
D-BC	84.29	21.07	84.61	0.00	441.85	0.191	0.32	0.24	10.086	B
C-ABD	14.38	3.60	14.41	0.00	539.60	0.027	0.03	0.03	6.856	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.93	37.98	151.93	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	124.97	31.24	125.42	0.00	526.19	0.238	0.43	0.32	8.992	A
A-BCD	0.00	0.00	0.00	0.00	578.15	0.000	0.00	0.00	0.000	A
A-B	21.08	5.27	21.08	0.00	-	-	-	-	-	-
A-C	268.77	67.19	268.77	0.00	-	-	-	-	-	-
D-AB	257.33	64.33	258.59	0.00	629.04	0.409	1.02	0.70	9.752	A
D-BC	70.91	17.73	71.13	0.00	457.84	0.155	0.24	0.19	9.315	A
C-ABD	12.05	3.01	12.07	0.00	550.36	0.022	0.03	0.02	6.689	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	127.23	31.81	127.23	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.41	0.29	8.907	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	9.65	0.64	9.538	A	A
D-BC	2.60	0.17	9.264	A	A
C-ABD	0.33	0.02	6.686	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.00	0.40	10.096	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.92	0.93	11.541	B	B
D-BC	3.39	0.23	10.049	B	B
C-ABD	0.41	0.03	6.853	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	8.83	0.59	12.292	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	22.69	1.51	15.803	C	B
D-BC	4.61	0.31	11.315	B	B
C-ABD	0.52	0.03	7.098	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.28	0.62	12.374	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	24.68	1.65	16.153	C	B
D-BC	4.79	0.32	11.344	B	B
C-ABD	0.52	0.03	7.098	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.65	0.44	10.180	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	16.15	1.08	11.834	B	B
D-BC	3.70	0.25	10.086	B	B
C-ABD	0.41	0.03	6.856	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.88	0.33	8.992	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.00	0.73	9.752	A	A
D-BC	2.86	0.19	9.315	A	A
C-ABD	0.34	0.02	6.689	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2022 Opening Year (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 Opening Year (With Dev), AM	2022 Opening Year (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		15.71	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	485.00	100.000
B	ONE HOUR	✓	269.00	100.000
C	ONE HOUR	✓	164.00	100.000
D	ONE HOUR	✓	315.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	95.000	390.000	0.000
	B	112.000	0.000	157.000	0.000
	C	153.000	11.000	0.000	0.000
	D	238.000	26.000	51.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.20	0.80	0.00
	B	0.42	0.00	0.58	0.00
	C	0.93	0.07	0.00	0.00
	D	0.76	0.08	0.16	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.64	21.81	1.75	C	246.84	370.26	98.10	15.90	1.09	98.13	15.90
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	87.17	130.76	-	-	-	-	-
A-C	-	-	-	-	357.87	536.81	-	-	-	-	-
D-AB	0.46	10.83	0.83	B	231.71	347.56	54.02	9.33	0.60	54.03	9.33
D-BC	0.17	10.68	0.20	B	57.34	86.01	13.97	9.74	0.16	13.97	9.75
C-ABD	0.02	7.32	0.02	A	10.09	15.14	1.78	7.07	0.02	1.78	7.07
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	140.40	210.59	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	202.52	50.63	199.96	0.00	512.77	0.395	0.00	0.64	11.419	B
A-BCD	0.00	0.00	0.00	0.00	581.51	0.000	0.00	0.00	0.000	A
A-B	71.52	17.88	71.52	0.00	-	-	-	-	-	-
A-C	293.61	73.40	293.61	0.00	-	-	-	-	-	-
D-AB	189.81	47.45	188.13	0.00	635.91	0.298	0.00	0.42	8.011	A
D-BC	47.34	11.83	46.87	0.00	448.72	0.105	0.00	0.12	8.949	A
C-ABD	8.28	2.07	8.22	0.00	535.96	0.015	0.00	0.02	6.821	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	115.19	28.80	115.19	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	241.83	60.46	240.61	0.00	491.07	0.492	0.64	0.94	14.301	B
A-BCD	0.00	0.00	0.00	0.00	576.78	0.000	0.00	0.00	0.000	A
A-B	85.40	21.35	85.40	0.00	-	-	-	-	-	-
A-C	350.60	87.65	350.60	0.00	-	-	-	-	-	-
D-AB	226.91	56.73	226.35	0.00	625.57	0.363	0.42	0.56	9.005	A
D-BC	56.27	14.07	56.14	0.00	430.63	0.131	0.12	0.15	9.610	A
C-ABD	9.89	2.47	9.87	0.00	522.40	0.019	0.02	0.02	7.023	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	137.54	34.39	137.54	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	296.17	74.04	293.16	0.00	460.66	0.643	0.94	1.70	21.108	C
A-BCD	0.00	0.00	0.00	0.00	570.25	0.000	0.00	0.00	0.000	A
A-B	104.60	26.15	104.60	0.00	-	-	-	-	-	-
A-C	429.40	107.35	429.40	0.00	-	-	-	-	-	-
D-AB	278.38	69.60	277.35	0.00	610.90	0.456	0.56	0.82	10.758	B
D-BC	68.44	17.11	68.23	0.00	405.84	0.169	0.15	0.20	10.656	B
C-ABD	12.11	3.03	12.09	0.00	503.65	0.024	0.02	0.02	7.323	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	168.46	42.11	168.46	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	296.17	74.04	295.97	0.00	460.49	0.643	1.70	1.75	21.810	C
A-BCD	0.00	0.00	0.00	0.00	570.25	0.000	0.00	0.00	0.000	A
A-B	104.60	26.15	104.60	0.00	-	-	-	-	-	-
A-C	429.40	107.35	429.40	0.00	-	-	-	-	-	-
D-AB	278.39	69.60	278.36	0.00	610.78	0.456	0.82	0.83	10.825	B
D-BC	68.43	17.11	68.42	0.00	405.42	0.169	0.20	0.20	10.682	B
C-ABD	12.11	3.03	12.11	0.00	503.65	0.024	0.02	0.02	7.323	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	168.46	42.11	168.46	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	241.83	60.46	244.80	0.00	490.81	0.493	1.75	1.00	14.806	B
A-BCD	0.00	0.00	0.00	0.00	576.77	0.000	0.00	0.00	0.000	A
A-B	85.40	21.35	85.40	0.00	-	-	-	-	-	-
A-C	350.60	87.65	350.60	0.00	-	-	-	-	-	-
D-AB	226.92	56.73	227.92	0.00	625.39	0.363	0.83	0.58	9.079	A
D-BC	56.26	14.06	56.45	0.00	430.02	0.131	0.20	0.15	9.641	A
C-ABD	9.89	2.47	9.91	0.00	522.40	0.019	0.02	0.02	7.026	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	137.54	34.39	137.54	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	202.52	50.63	203.85	0.00	512.41	0.395	1.00	0.67	11.719	B
A-BCD	0.00	0.00	0.00	0.00	581.49	0.000	0.00	0.00	0.000	A
A-B	71.52	17.88	71.52	0.00	-	-	-	-	-	-
A-C	293.61	73.40	293.61	0.00	-	-	-	-	-	-
D-AB	189.82	47.46	190.41	0.00	635.65	0.299	0.58	0.43	8.097	A
D-BC	47.32	11.83	47.46	0.00	448.16	0.106	0.15	0.12	8.986	A
C-ABD	8.28	2.07	8.30	0.00	535.96	0.015	0.02	0.02	6.824	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	115.19	28.80	115.19	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.02	0.60	11.419	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.04	0.40	8.011	A	A
D-BC	1.68	0.11	8.949	A	A
C-ABD	0.23	0.02	6.821	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	13.43	0.90	14.301	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.15	0.54	9.005	A	A
D-BC	2.17	0.14	9.610	A	A
C-ABD	0.29	0.02	7.023	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	23.29	1.55	21.108	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.80	0.79	10.758	B	B
D-BC	2.91	0.19	10.656	B	B
C-ABD	0.37	0.02	7.323	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	25.88	1.73	21.810	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.38	0.83	10.825	B	B
D-BC	3.02	0.20	10.682	B	B
C-ABD	0.37	0.02	7.323	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	16.01	1.07	14.806	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.99	0.60	9.079	A	A
D-BC	2.35	0.16	9.641	A	A
C-ABD	0.29	0.02	7.026	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	10.47	0.70	11.719	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.66	0.44	8.097	A	A
D-BC	1.84	0.12	8.986	A	A
C-ABD	0.24	0.02	6.824	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2022 Opening Year (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2022 Opening Year (With Dev), PM	2022 Opening Year (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		16.42	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	432.00	100.000
B	ONE HOUR	✓	221.00	100.000
C	ONE HOUR	✓	190.00	100.000
D	ONE HOUR	✓	448.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	75.000	357.000	0.000
	B	91.000	0.000	130.000	0.000
	C	169.000	21.000	0.000	0.000
	D	327.000	38.000	83.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.17	0.83	0.00
	B	0.41	0.00	0.59	0.00
	C	0.89	0.11	0.00	0.00
	D	0.73	0.08	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.54	17.56	1.16	C	202.79	304.19	69.15	13.64	0.77	69.17	13.64
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	68.82	103.23	-	-	-	-	-
A-C	-	-	-	-	327.59	491.38	-	-	-	-	-
D-AB	0.65	17.52	1.83	C	320.74	481.11	106.05	13.23	1.18	106.08	13.23
D-BC	0.26	11.85	0.35	B	90.35	135.52	23.90	10.58	0.27	23.90	10.58
C-ABD	0.04	7.32	0.05	A	19.27	28.91	3.41	7.07	0.04	3.41	7.07
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	155.08	232.62	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	166.38	41.60	164.46	0.00	506.36	0.329	0.00	0.48	10.472	B
A-BCD	0.00	0.00	0.00	0.00	577.15	0.000	0.00	0.00	0.000	A
A-B	56.46	14.12	56.46	0.00	-	-	-	-	-	-
A-C	268.77	67.19	268.77	0.00	-	-	-	-	-	-
D-AB	262.48	65.62	259.61	0.00	622.43	0.422	0.00	0.72	9.848	A
D-BC	74.80	18.70	74.02	0.00	452.51	0.165	0.00	0.20	9.493	A
C-ABD	15.81	3.95	15.69	0.00	543.59	0.029	0.00	0.03	6.817	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	127.23	31.81	127.23	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	198.67	49.67	197.86	0.00	482.38	0.412	0.48	0.68	12.612	B
A-BCD	0.00	0.00	0.00	0.00	571.55	0.000	0.00	0.00	0.000	A
A-B	67.42	16.86	67.42	0.00	-	-	-	-	-	-
A-C	320.94	80.23	320.94	0.00	-	-	-	-	-	-
D-AB	314.03	78.51	312.74	0.00	609.27	0.515	0.72	1.04	12.085	B
D-BC	88.72	22.18	88.49	0.00	435.21	0.204	0.20	0.25	10.377	B
C-ABD	18.88	4.72	18.85	0.00	531.52	0.036	0.03	0.04	7.021	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.93	37.98	151.93	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	243.33	60.83	241.50	0.00	448.46	0.543	0.68	1.14	17.238	C
A-BCD	0.00	0.00	0.00	0.00	563.85	0.000	0.00	0.00	0.000	A
A-B	82.58	20.64	82.58	0.00	-	-	-	-	-	-
A-C	393.06	98.27	393.06	0.00	-	-	-	-	-	-
D-AB	385.69	96.42	382.68	0.00	590.70	0.653	1.04	1.79	17.054	C
D-BC	107.57	26.89	107.19	0.00	411.47	0.261	0.25	0.35	11.815	B
C-ABD	23.12	5.78	23.08	0.00	514.82	0.045	0.04	0.05	7.320	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	186.07	46.52	186.07	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	243.33	60.83	243.23	0.00	447.95	0.543	1.14	1.16	17.563	C
A-BCD	0.00	0.00	0.00	0.00	563.84	0.000	0.00	0.00	0.000	A
A-B	82.58	20.64	82.58	0.00	-	-	-	-	-	-
A-C	393.06	98.27	393.06	0.00	-	-	-	-	-	-
D-AB	385.71	96.43	385.53	0.00	590.51	0.653	1.79	1.83	17.522	C
D-BC	107.55	26.89	107.53	0.00	411.20	0.262	0.35	0.35	11.854	B
C-ABD	23.12	5.78	23.12	0.00	514.82	0.045	0.05	0.05	7.320	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	186.07	46.52	186.07	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	198.67	49.67	200.46	0.00	481.67	0.412	1.16	0.72	12.883	B
A-BCD	0.00	0.00	0.00	0.00	571.54	0.000	0.00	0.00	0.000	A
A-B	67.42	16.86	67.42	0.00	-	-	-	-	-	-
A-C	320.94	80.23	320.94	0.00	-	-	-	-	-	-
D-AB	314.05	78.51	317.01	0.00	608.98	0.516	1.83	1.09	12.451	B
D-BC	88.69	22.17	89.06	0.00	434.81	0.204	0.35	0.26	10.424	B
C-ABD	18.88	4.72	18.92	0.00	531.52	0.036	0.05	0.04	7.025	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.93	37.98	151.93	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	166.38	41.60	167.26	0.00	505.66	0.329	0.72	0.50	10.665	B
A-BCD	0.00	0.00	0.00	0.00	577.11	0.000	0.00	0.00	0.000	A
A-B	56.46	14.12	56.46	0.00	-	-	-	-	-	-
A-C	268.77	67.19	268.77	0.00	-	-	-	-	-	-
D-AB	262.51	65.63	263.90	0.00	622.01	0.422	1.09	0.74	10.093	B
D-BC	74.77	18.69	75.01	0.00	452.08	0.165	0.26	0.20	9.553	A
C-ABD	15.81	3.95	15.84	0.00	543.59	0.029	0.04	0.03	6.820	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	127.23	31.81	127.23	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.84	0.46	10.472	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.15	0.68	9.848	A	A
D-BC	2.81	0.19	9.493	A	A
C-ABD	0.44	0.03	6.817	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.84	0.66	12.612	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	14.83	0.99	12.085	B	B
D-BC	3.68	0.25	10.377	B	B
C-ABD	0.55	0.04	7.021	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	16.01	1.07	17.238	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	24.82	1.65	17.054	C	B
D-BC	5.04	0.34	11.815	B	B
C-ABD	0.70	0.05	7.320	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	17.33	1.16	17.563	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	27.23	1.82	17.522	C	B
D-BC	5.25	0.35	11.854	B	B
C-ABD	0.71	0.05	7.320	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	11.36	0.76	12.883	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	17.39	1.16	12.451	B	B
D-BC	4.03	0.27	10.424	B	B
C-ABD	0.56	0.04	7.025	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.78	0.52	10.665	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.64	0.78	10.093	B	B
D-BC	3.09	0.21	9.553	A	A
C-ABD	0.45	0.03	6.820	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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Filename: J1 - Circular Road-Academy Street PICADY Model 2027 Opening Year +5 V2 (oct 2019).arc8
Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC2060\oct 2019\J1
Report generation date: 02/10/2019 12:08:29

- » Existing Layout - 2027 Opening Year +5 (Without Dev), AM
- » Existing Layout - 2027 Opening Year +5 (Without Dev), PM
- » Existing Layout - 2027 Opening Year +5 (With Dev), AM
- » Existing Layout - 2027 Opening Year +5 (With Dev), PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
Existing Layout - 2027 Opening Year +5 (With Dev)								
Stream B-ACD	1.96	24.00	0.67	16.94	1.32	19.27	0.57	18.21
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.93	11.49	0.48		2.17	19.85	0.69	
Stream D-BC	0.22	11.00	0.18		0.38	12.30	0.28	
Stream C-ABD	0.02	7.39	0.02		0.05	7.40	0.05	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	
Existing Layout - 2027 Opening Year +5 (Without Dev)								
Stream B-ACD	0.35	9.26	0.26	10.34	0.70	13.24	0.41	15.63
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.87	10.99	0.47		1.96	18.23	0.67	
Stream D-BC	0.19	10.19	0.16		0.35	11.77	0.26	
Stream C-ABD	0.02	7.15	0.02		0.04	7.18	0.04	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D7 - 2027 Opening Year +5 (Without Dev), AM" model duration: 07:45 - 09:15
 "D8 - 2027 Opening Year +5 (Without Dev), PM" model duration: 16:45 - 18:15
 "D9 - 2027 Opening Year +5 (With Dev), AM" model duration: 07:45 - 09:15
 "D10 - 2027 Opening Year +5 (With Dev), PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 02/10/2019 12:08:26

File summary

Title	J1 - Circular Road-Academy Street
Location	Navan, Ireland
Site Number	
Date	26/02/2019
Version	v1
Status	Preliminary
Identifier	
Client	4Way Consulting
Jobnumber	ADC2060
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2027 Opening Year +5 (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2027 Opening Year +5 (Without Dev), AM	2027 Opening Year +5 (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		10.34	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	446.00	100.000
B	ONE HOUR	✓	123.00	100.000
C	ONE HOUR	✓	169.00	100.000
D	ONE HOUR	✓	324.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	36.000	410.000	0.000
	B	23.000	0.000	100.000	0.000
	C	161.000	8.000	0.000	0.000
	D	251.000	19.000	54.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.19	0.00	0.81	0.00
	C	0.95	0.05	0.00	0.00
	D	0.77	0.06	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.26	9.26	0.35	A	112.87	169.30	23.54	8.34	0.26	23.55	8.34
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	33.03	49.55	-	-	-	-	-
A-C	-	-	-	-	376.22	564.33	-	-	-	-	-
D-AB	0.47	10.99	0.87	B	240.07	360.10	56.58	9.43	0.63	56.59	9.43
D-BC	0.16	10.19	0.19	B	57.24	85.86	13.44	9.39	0.15	13.44	9.39
C-ABD	0.02	7.15	0.02	A	7.34	11.01	1.27	6.94	0.01	1.27	6.94
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	147.74	221.60	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	23.15	91.83	0.00	568.58	0.163	0.00	0.19	7.538	A
A-BCD	0.00	0.00	0.00	0.00	580.98	0.000	0.00	0.00	0.000	A
A-B	27.10	6.78	27.10	0.00	-	-	-	-	-	-
A-C	308.67	77.17	308.67	0.00	-	-	-	-	-	-
D-AB	196.75	49.19	195.00	0.00	639.81	0.308	0.00	0.44	8.063	A
D-BC	47.17	11.79	46.72	0.00	459.10	0.103	0.00	0.11	8.720	A
C-ABD	6.02	1.51	5.98	0.00	541.57	0.011	0.00	0.01	6.721	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	27.64	110.35	0.00	550.26	0.201	0.19	0.25	8.179	A
A-BCD	0.00	0.00	0.00	0.00	576.15	0.000	0.00	0.00	0.000	A
A-B	32.36	8.09	32.36	0.00	-	-	-	-	-	-
A-C	368.58	92.15	368.58	0.00	-	-	-	-	-	-
D-AB	235.13	58.78	234.54	0.00	629.87	0.373	0.44	0.59	9.092	A
D-BC	56.14	14.03	56.02	0.00	443.34	0.127	0.11	0.14	9.291	A
C-ABD	7.19	1.80	7.18	0.00	529.10	0.014	0.01	0.01	6.896	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	33.86	135.05	0.00	524.46	0.258	0.25	0.34	9.235	A
A-BCD	0.00	0.00	0.00	0.00	569.48	0.000	0.00	0.00	0.000	A
A-B	39.64	9.91	39.64	0.00	-	-	-	-	-	-
A-C	451.42	112.85	451.42	0.00	-	-	-	-	-	-
D-AB	288.31	72.08	287.21	0.00	615.88	0.468	0.59	0.86	10.916	B
D-BC	68.42	17.10	68.23	0.00	421.65	0.162	0.14	0.19	10.181	B
C-ABD	8.81	2.20	8.79	0.00	511.86	0.017	0.01	0.02	7.155	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	135.43	33.86	135.42	0.00	524.36	0.258	0.34	0.35	9.255	A
A-BCD	0.00	0.00	0.00	0.00	569.47	0.000	0.00	0.00	0.000	A
A-B	39.64	9.91	39.64	0.00	-	-	-	-	-	-
A-C	451.42	112.85	451.42	0.00	-	-	-	-	-	-
D-AB	288.32	72.08	288.28	0.00	615.80	0.468	0.86	0.87	10.988	B
D-BC	68.41	17.10	68.41	0.00	421.59	0.162	0.19	0.19	10.192	B
C-ABD	8.81	2.20	8.81	0.00	511.86	0.017	0.02	0.02	7.155	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	110.57	27.64	110.94	0.00	550.11	0.201	0.35	0.25	8.203	A
A-BCD	0.00	0.00	0.00	0.00	576.14	0.000	0.00	0.00	0.000	A
A-B	32.36	8.09	32.36	0.00	-	-	-	-	-	-
A-C	368.58	92.15	368.58	0.00	-	-	-	-	-	-
D-AB	235.14	58.78	236.20	0.00	629.73	0.373	0.87	0.61	9.172	A
D-BC	56.13	14.03	56.32	0.00	443.23	0.127	0.19	0.15	9.310	A
C-ABD	7.19	1.80	7.21	0.00	529.10	0.014	0.02	0.01	6.897	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	92.60	23.15	92.83	0.00	568.38	0.163	0.25	0.20	7.575	A
A-BCD	0.00	0.00	0.00	0.00	580.96	0.000	0.00	0.00	0.000	A
A-B	27.10	6.78	27.10	0.00	-	-	-	-	-	-
A-C	308.67	77.17	308.67	0.00	-	-	-	-	-	-
D-AB	196.76	49.19	197.38	0.00	639.58	0.308	0.61	0.45	8.154	A
D-BC	47.16	11.79	47.29	0.00	458.92	0.103	0.15	0.12	8.749	A
C-ABD	6.02	1.51	6.03	0.00	541.57	0.011	0.01	0.01	6.724	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.79	0.19	7.538	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.30	0.42	8.063	A	A
D-BC	1.63	0.11	8.720	A	A
C-ABD	0.17	0.01	6.721	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.64	0.24	8.179	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.52	0.57	9.092	A	A
D-BC	2.10	0.14	9.291	A	A
C-ABD	0.21	0.01	6.896	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.00	0.33	9.235	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.38	0.83	10.916	B	B
D-BC	2.79	0.19	10.181	B	B
C-ABD	0.26	0.02	7.155	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.17	0.34	9.255	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.00	0.87	10.988	B	B
D-BC	2.88	0.19	10.192	B	B
C-ABD	0.26	0.02	7.155	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.92	0.26	8.203	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	9.42	0.63	9.172	A	A
D-BC	2.26	0.15	9.310	A	A
C-ABD	0.21	0.01	6.897	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.02	0.20	7.575	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.96	0.46	8.154	A	A
D-BC	1.78	0.12	8.749	A	A
C-ABD	0.17	0.01	6.724	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2027 Opening Year +5 (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2027 Opening Year +5 (Without Dev), PM	2027 Opening Year +5 (Without Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		15.63	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	406.00	100.000
B	ONE HOUR	✓	175.00	100.000
C	ONE HOUR	✓	195.00	100.000
D	ONE HOUR	✓	459.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	30.000	376.000	0.000
	B	61.000	0.000	114.000	0.000
	C	178.000	17.000	0.000	0.000
	D	344.000	28.000	87.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.35	0.00	0.65	0.00
	C	0.91	0.09	0.00	0.00
	D	0.75	0.06	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.41	13.24	0.70	B	160.58	240.87	44.39	11.06	0.49	44.40	11.06
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	27.53	41.29	-	-	-	-	-
A-C	-	-	-	-	345.02	517.54	-	-	-	-	-
D-AB	0.67	18.23	1.96	C	331.00	496.50	112.42	13.59	1.25	112.45	13.59
D-BC	0.26	11.77	0.35	B	90.19	135.28	23.73	10.52	0.26	23.73	10.52
C-ABD	0.04	7.18	0.04	A	15.60	23.40	2.71	6.95	0.03	2.71	6.95
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	163.34	245.00	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	131.75	32.94	130.41	0.00	521.11	0.253	0.00	0.33	9.184	A
A-BCD	0.00	0.00	0.00	0.00	576.68	0.000	0.00	0.00	0.000	A
A-B	22.59	5.65	22.59	0.00	-	-	-	-	-	-
A-C	283.07	70.77	283.07	0.00	-	-	-	-	-	-
D-AB	271.05	67.76	268.05	0.00	625.96	0.433	0.00	0.75	9.978	A
D-BC	74.51	18.63	73.73	0.00	453.77	0.164	0.00	0.19	9.454	A
C-ABD	12.80	3.20	12.70	0.00	547.34	0.023	0.00	0.02	6.733	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	134.01	33.50	134.01	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	157.32	39.33	156.84	0.00	497.90	0.316	0.33	0.45	10.540	B
A-BCD	0.00	0.00	0.00	0.00	571.00	0.000	0.00	0.00	0.000	A
A-B	26.97	6.74	26.97	0.00	-	-	-	-	-	-
A-C	338.02	84.50	338.02	0.00	-	-	-	-	-	-
D-AB	324.12	81.03	322.75	0.00	612.96	0.529	0.75	1.09	12.343	B
D-BC	88.51	22.13	88.28	0.00	436.83	0.203	0.19	0.25	10.322	B
C-ABD	15.28	3.82	15.26	0.00	535.99	0.029	0.02	0.03	6.912	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.02	40.00	160.02	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	192.68	48.17	191.73	0.00	464.92	0.414	0.45	0.69	13.126	B
A-BCD	0.00	0.00	0.00	0.00	563.17	0.000	0.00	0.00	0.000	A
A-B	33.03	8.26	33.03	0.00	-	-	-	-	-	-
A-C	413.98	103.50	413.98	0.00	-	-	-	-	-	-
D-AB	397.79	99.45	394.51	0.00	594.65	0.669	1.09	1.91	17.690	C
D-BC	107.57	26.89	107.19	0.00	413.55	0.260	0.25	0.35	11.735	B
C-ABD	18.72	4.68	18.69	0.00	520.30	0.036	0.03	0.04	7.176	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	195.98	49.00	195.98	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	192.68	48.17	192.64	0.00	464.42	0.415	0.69	0.70	13.242	B
A-BCD	0.00	0.00	0.00	0.00	563.16	0.000	0.00	0.00	0.000	A
A-B	33.03	8.26	33.03	0.00	-	-	-	-	-	-
A-C	413.98	103.50	413.98	0.00	-	-	-	-	-	-
D-AB	397.81	99.45	397.60	0.00	594.48	0.669	1.91	1.96	18.232	C
D-BC	107.56	26.89	107.55	0.00	413.39	0.260	0.35	0.35	11.770	B
C-ABD	18.72	4.68	18.72	0.00	520.30	0.036	0.04	0.04	7.176	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	195.98	49.00	195.98	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	157.32	39.33	158.24	0.00	497.22	0.316	0.70	0.47	10.648	B
A-BCD	0.00	0.00	0.00	0.00	570.98	0.000	0.00	0.00	0.000	A
A-B	26.97	6.74	26.97	0.00	-	-	-	-	-	-
A-C	338.02	84.50	338.02	0.00	-	-	-	-	-	-
D-AB	324.14	81.03	327.38	0.00	612.69	0.529	1.96	1.15	12.758	B
D-BC	88.49	22.12	88.86	0.00	436.59	0.203	0.35	0.26	10.365	B
C-ABD	15.28	3.82	15.31	0.00	535.99	0.029	0.04	0.03	6.913	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.02	40.00	160.02	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	131.75	32.94	132.26	0.00	520.45	0.253	0.47	0.34	9.287	A
A-BCD	0.00	0.00	0.00	0.00	576.65	0.000	0.00	0.00	0.000	A
A-B	22.59	5.65	22.59	0.00	-	-	-	-	-	-
A-C	283.07	70.77	283.07	0.00	-	-	-	-	-	-
D-AB	271.07	67.77	272.57	0.00	625.55	0.433	1.15	0.78	10.244	B
D-BC	74.49	18.62	74.72	0.00	453.46	0.164	0.26	0.20	9.510	A
C-ABD	12.80	3.20	12.82	0.00	547.34	0.023	0.03	0.02	6.737	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	134.01	33.50	134.01	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.78	0.32	9.184	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.61	0.71	9.978	A	A
D-BC	2.79	0.19	9.454	A	A
C-ABD	0.35	0.02	6.733	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	6.59	0.44	10.540	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	15.60	1.04	12.343	B	B
D-BC	3.66	0.24	10.322	B	B
C-ABD	0.44	0.03	6.912	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.90	0.66	13.126	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	26.43	1.76	17.690	C	B
D-BC	5.01	0.33	11.735	B	B
C-ABD	0.56	0.04	7.176	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	10.45	0.70	13.242	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	29.16	1.94	18.232	C	B
D-BC	5.21	0.35	11.770	B	B
C-ABD	0.56	0.04	7.176	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.35	0.49	10.648	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	18.41	1.23	12.758	B	B
D-BC	3.99	0.27	10.365	B	B
C-ABD	0.44	0.03	6.913	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.32	0.35	9.287	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.21	0.81	10.244	B	B
D-BC	3.07	0.20	9.510	A	A
C-ABD	0.36	0.02	6.737	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2027 Opening Year +5 (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2027 Opening Year +5 (With Dev), AM	2027 Opening Year +5 (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		16.94	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	507.00	100.000
B	ONE HOUR	✓	276.00	100.000
C	ONE HOUR	✓	172.00	100.000
D	ONE HOUR	✓	332.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	97.000	410.000	0.000
	B	114.000	0.000	162.000	0.000
	C	161.000	11.000	0.000	0.000
	D	251.000	27.000	54.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.19	0.81	0.00
	B	0.41	0.00	0.59	0.00
	C	0.94	0.06	0.00	0.00
	D	0.76	0.08	0.16	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.67	24.00	1.96	C	253.26	379.89	107.32	16.95	1.19	107.35	16.96
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	89.01	133.51	-	-	-	-	-
A-C	-	-	-	-	376.22	564.33	-	-	-	-	-
D-AB	0.48	11.49	0.93	B	244.25	366.38	59.52	9.75	0.66	59.53	9.75
D-BC	0.18	11.00	0.22	B	60.40	90.59	15.05	9.97	0.17	15.06	9.97
C-ABD	0.02	7.39	0.02	A	10.09	15.14	1.80	7.13	0.02	1.80	7.13
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	147.74	221.60	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	207.79	51.95	205.08	0.00	508.08	0.409	0.00	0.68	11.781	B
A-BCD	0.00	0.00	0.00	0.00	580.36	0.000	0.00	0.00	0.000	A
A-B	73.03	18.26	73.03	0.00	-	-	-	-	-	-
A-C	308.67	77.17	308.67	0.00	-	-	-	-	-	-
D-AB	200.07	50.02	198.25	0.00	633.46	0.316	0.00	0.46	8.238	A
D-BC	49.88	12.47	49.38	0.00	444.70	0.112	0.00	0.12	9.096	A
C-ABD	8.28	2.07	8.22	0.00	532.79	0.016	0.00	0.02	6.862	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	248.12	62.03	246.77	0.00	485.21	0.511	0.68	1.01	15.008	C
A-BCD	0.00	0.00	0.00	0.00	575.40	0.000	0.00	0.00	0.000	A
A-B	87.20	21.80	87.20	0.00	-	-	-	-	-	-
A-C	368.58	92.15	368.58	0.00	-	-	-	-	-	-
D-AB	239.19	59.80	238.56	0.00	622.50	0.384	0.46	0.61	9.360	A
D-BC	59.27	14.82	59.13	0.00	425.79	0.139	0.12	0.16	9.810	A
C-ABD	9.89	2.47	9.87	0.00	518.61	0.019	0.02	0.02	7.075	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	303.88	75.97	300.35	0.00	453.10	0.671	1.01	1.90	23.052	C
A-BCD	0.00	0.00	0.00	0.00	568.57	0.000	0.00	0.00	0.000	A
A-B	106.80	26.70	106.80	0.00	-	-	-	-	-	-
A-C	451.42	112.85	451.42	0.00	-	-	-	-	-	-
D-AB	293.48	73.37	292.28	0.00	606.91	0.484	0.61	0.91	11.397	B
D-BC	72.06	18.01	71.83	0.00	399.88	0.180	0.16	0.22	10.965	B
C-ABD	12.11	3.03	12.09	0.00	499.02	0.024	0.02	0.02	7.392	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	303.88	75.97	303.62	0.00	452.90	0.671	1.90	1.96	24.001	C
A-BCD	0.00	0.00	0.00	0.00	568.56	0.000	0.00	0.00	0.000	A
A-B	106.80	26.70	106.80	0.00	-	-	-	-	-	-
A-C	451.42	112.85	451.42	0.00	-	-	-	-	-	-
D-AB	293.49	73.37	293.45	0.00	606.77	0.484	0.91	0.93	11.486	B
D-BC	72.05	18.01	72.04	0.00	399.39	0.180	0.22	0.22	10.997	B
C-ABD	12.11	3.03	12.11	0.00	499.02	0.024	0.02	0.02	7.392	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	177.26	44.32	177.26	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	248.12	62.03	251.64	0.00	484.91	0.512	1.96	1.08	15.654	C
A-BCD	0.00	0.00	0.00	0.00	575.39	0.000	0.00	0.00	0.000	A
A-B	87.20	21.80	87.20	0.00	-	-	-	-	-	-
A-C	368.58	92.15	368.58	0.00	-	-	-	-	-	-
D-AB	239.20	59.80	240.37	0.00	622.30	0.384	0.93	0.63	9.456	A
D-BC	59.26	14.81	59.48	0.00	425.09	0.139	0.22	0.16	9.852	A
C-ABD	9.89	2.47	9.91	0.00	518.61	0.019	0.02	0.02	7.076	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	144.74	36.18	144.74	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	207.79	51.95	209.28	0.00	507.68	0.409	1.08	0.71	12.126	B
A-BCD	0.00	0.00	0.00	0.00	580.34	0.000	0.00	0.00	0.000	A
A-B	73.03	18.26	73.03	0.00	-	-	-	-	-	-
A-C	308.67	77.17	308.67	0.00	-	-	-	-	-	-
D-AB	200.08	50.02	200.75	0.00	633.17	0.316	0.63	0.47	8.339	A
D-BC	49.87	12.47	50.01	0.00	444.10	0.112	0.16	0.13	9.139	A
C-ABD	8.28	2.07	8.30	0.00	532.79	0.016	0.02	0.02	6.865	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	121.21	30.30	121.21	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.53	0.64	11.781	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.54	0.44	8.238	A	A
D-BC	1.80	0.12	9.096	A	A
C-ABD	0.23	0.02	6.862	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	14.40	0.96	15.008	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	8.91	0.59	9.360	A	A
D-BC	2.34	0.16	9.810	A	A
C-ABD	0.29	0.02	7.075	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	25.81	1.72	23.052	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.12	0.87	11.397	B	B
D-BC	3.15	0.21	10.965	B	B
C-ABD	0.37	0.02	7.392	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	29.05	1.94	24.001	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.82	0.92	11.486	B	B
D-BC	3.27	0.22	10.997	B	B
C-ABD	0.37	0.02	7.392	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	17.40	1.16	15.654	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	9.90	0.66	9.456	A	A
D-BC	2.53	0.17	9.852	A	A
C-ABD	0.29	0.02	7.076	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	11.14	0.74	12.126	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.24	0.48	8.339	A	A
D-BC	1.97	0.13	9.139	A	A
C-ABD	0.24	0.02	6.865	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2027 Opening Year +5 (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2027 Opening Year +5 (With Dev), PM	2027 Opening Year +5 (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		18.21	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	453.00	100.000
B	ONE HOUR	✓	229.00	100.000
C	ONE HOUR	✓	200.00	100.000
D	ONE HOUR	✓	470.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	77.000	376.000	0.000
	B	94.000	0.000	135.000	0.000
	C	178.000	22.000	0.000	0.000
	D	344.000	39.000	87.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.17	0.83	0.00
	B	0.41	0.00	0.59	0.00
	C	0.89	0.11	0.00	0.00
	D	0.73	0.08	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.57	19.27	1.32	C	210.13	315.20	76.42	14.55	0.85	76.44	14.55
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	70.66	105.98	-	-	-	-	-
A-C	-	-	-	-	345.02	517.54	-	-	-	-	-
D-AB	0.69	19.85	2.17	C	337.10	505.64	121.37	14.40	1.35	121.40	14.41
D-BC	0.28	12.30	0.38	B	94.18	141.28	25.64	10.89	0.28	25.64	10.89
C-ABD	0.05	7.40	0.05	A	20.19	30.28	3.60	7.14	0.04	3.60	7.14
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	163.34	245.00	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	172.40	43.10	170.34	0.00	500.62	0.344	0.00	0.52	10.834	B
A-BCD	0.00	0.00	0.00	0.00	575.65	0.000	0.00	0.00	0.000	A
A-B	57.97	14.49	57.97	0.00	-	-	-	-	-	-
A-C	283.07	70.77	283.07	0.00	-	-	-	-	-	-
D-AB	275.82	68.96	272.68	0.00	619.61	0.445	0.00	0.79	10.287	B
D-BC	78.02	19.50	77.19	0.00	448.21	0.174	0.00	0.21	9.682	A
C-ABD	16.56	4.14	16.44	0.00	540.57	0.031	0.00	0.03	6.866	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	134.01	33.50	134.01	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	205.87	51.47	204.95	0.00	475.21	0.433	0.52	0.75	13.273	B
A-BCD	0.00	0.00	0.00	0.00	569.76	0.000	0.00	0.00	0.000	A
A-B	69.22	17.31	69.22	0.00	-	-	-	-	-	-
A-C	338.02	84.50	338.02	0.00	-	-	-	-	-	-
D-AB	330.02	82.51	328.52	0.00	605.70	0.545	0.79	1.16	12.915	B
D-BC	92.50	23.12	92.25	0.00	430.05	0.215	0.21	0.27	10.650	B
C-ABD	19.78	4.94	19.75	0.00	527.91	0.037	0.03	0.04	7.083	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.02	40.00	160.02	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	252.13	63.03	249.97	0.00	439.17	0.574	0.75	1.29	18.807	C
A-BCD	0.00	0.00	0.00	0.00	561.66	0.000	0.00	0.00	0.000	A
A-B	84.78	21.19	84.78	0.00	-	-	-	-	-	-
A-C	413.98	103.50	413.98	0.00	-	-	-	-	-	-
D-AB	405.40	101.35	401.62	0.00	586.04	0.692	1.16	2.11	19.124	C
D-BC	112.08	28.02	111.66	0.00	405.10	0.277	0.27	0.38	12.249	B
C-ABD	24.22	6.06	24.18	0.00	510.40	0.047	0.04	0.05	7.403	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	195.98	49.00	195.98	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	252.13	63.03	252.01	0.00	438.53	0.575	1.29	1.32	19.266	C
A-BCD	0.00	0.00	0.00	0.00	561.64	0.000	0.00	0.00	0.000	A
A-B	84.78	21.19	84.78	0.00	-	-	-	-	-	-
A-C	413.98	103.50	413.98	0.00	-	-	-	-	-	-
D-AB	405.42	101.36	405.16	0.00	585.82	0.692	2.11	2.17	19.848	C
D-BC	112.06	28.01	112.04	0.00	404.78	0.277	0.38	0.38	12.297	B
C-ABD	24.22	6.06	24.22	0.00	510.40	0.047	0.05	0.05	7.403	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	195.98	49.00	195.98	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	205.87	51.47	208.00	0.00	474.34	0.434	1.32	0.79	13.621	B
A-BCD	0.00	0.00	0.00	0.00	569.74	0.000	0.00	0.00	0.000	A
A-B	69.22	17.31	69.22	0.00	-	-	-	-	-	-
A-C	338.02	84.50	338.02	0.00	-	-	-	-	-	-
D-AB	330.05	82.51	333.80	0.00	605.37	0.545	2.17	1.24	13.434	B
D-BC	92.47	23.12	92.87	0.00	429.57	0.215	0.38	0.28	10.704	B
C-ABD	19.78	4.94	19.82	0.00	527.91	0.037	0.05	0.04	7.085	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	160.02	40.00	160.02	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	172.40	43.10	173.40	0.00	499.82	0.345	0.79	0.54	11.062	B
A-BCD	0.00	0.00	0.00	0.00	575.61	0.000	0.00	0.00	0.000	A
A-B	57.97	14.49	57.97	0.00	-	-	-	-	-	-
A-C	283.07	70.77	283.07	0.00	-	-	-	-	-	-
D-AB	275.86	68.96	277.52	0.00	619.14	0.446	1.24	0.82	10.588	B
D-BC	77.98	19.50	78.24	0.00	447.74	0.174	0.28	0.21	9.751	A
C-ABD	16.56	4.14	16.59	0.00	540.57	0.031	0.04	0.03	6.872	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	134.01	33.50	134.01	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.32	0.49	10.834	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.11	0.74	10.287	B	B
D-BC	2.98	0.20	9.682	A	A
C-ABD	0.47	0.03	6.866	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	10.69	0.71	13.273	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	16.56	1.10	12.915	B	B
D-BC	3.94	0.26	10.650	B	B
C-ABD	0.58	0.04	7.083	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	17.94	1.20	18.807	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	28.87	1.92	19.124	C	B
D-BC	5.43	0.36	12.249	B	B
C-ABD	0.74	0.05	7.403	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	19.61	1.31	19.266	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	32.19	2.15	19.848	C	B
D-BC	5.67	0.38	12.297	B	B
C-ABD	0.75	0.05	7.403	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	12.48	0.83	13.621	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	19.77	1.32	13.434	B	B
D-BC	4.32	0.29	10.704	B	B
C-ABD	0.59	0.04	7.085	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	8.38	0.56	11.062	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.87	0.86	10.588	B	B
D-BC	3.30	0.22	9.751	A	A
C-ABD	0.48	0.03	6.872	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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Filename: J1 - Circular Road-Academy Street PICADY Model 2037 Opening Year +15 V2 (oct 2019).arc8

Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC2060\oct 2019\J1

Report generation date: 02/10/2019 12:11:10

- » Existing Layout - 2037 Opening Year +15 (Without Dev), AM
- » Existing Layout - 2037 Opening Year +15 (Without Dev), PM
- » Existing Layout - 2037 Opening Year +15 (With Dev), AM
- » Existing Layout - 2037 Opening Year +15 (With Dev), PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
Existing Layout - 2037 Opening Year +15 (With Dev)								
Stream B-ACD	2.15	25.95	0.69	18.03	1.49	21.11	0.61	20.23
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	1.01	12.07	0.51		2.55	22.51	0.73	
Stream D-BC	0.23	11.26	0.19		0.41	12.73	0.29	
Stream C-ABD	0.02	7.45	0.02		0.05	7.45	0.05	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	
Existing Layout - 2037 Opening Year +15 (Without Dev)								
Stream B-ACD	0.37	9.54	0.27	10.76	0.77	13.98	0.44	17.05
Stream A-BCD	0.00	0.00	0.00		0.00	0.00	0.00	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
Stream D-AB	0.95	11.52	0.49		2.27	20.32	0.70	
Stream D-BC	0.20	10.41	0.17		0.38	12.15	0.27	
Stream C-ABD	0.02	7.21	0.02		0.04	7.22	0.04	
Stream C-D	-	-	-		-	-	-	
Stream C-A	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D11 - 2037 Opening Year +15 (Without Dev), AM" model duration: 07:45 - 09:15

"D12 - 2037 Opening Year +15 (Without Dev), PM" model duration: 16:45 - 18:15

"D13 - 2037 Opening Year +15 (With Dev), AM" model duration: 07:45 - 09:15

"D14 - 2037 Opening Year +15 (With Dev), PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 02/10/2019 12:11:07

File summary

Title	J1 - Circular Road-Academy Street
Location	Navan, Ireland
Site Number	
Date	26/02/2019
Version	v1
Status	Preliminary
Identifier	
Client	4Way Consulting
Jobnumber	ADC2060
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

Existing Layout - 2037 Opening Year +15 (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2037 Opening Year +15 (Without Dev), AM	2037 Opening Year +15 (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		10.76	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	465.00	100.000
B	ONE HOUR	✓	128.00	100.000
C	ONE HOUR	✓	176.00	100.000
D	ONE HOUR	✓	337.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	38.000	427.000	0.000
	B	24.000	0.000	104.000	0.000
	C	168.000	8.000	0.000	0.000
	D	261.000	20.000	56.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.08	0.92	0.00
	B	0.19	0.00	0.81	0.00
	C	0.95	0.05	0.00	0.00
	D	0.77	0.06	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.27	9.54	0.37	A	117.46	176.18	25.09	8.54	0.28	25.09	8.54
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	34.87	52.30	-	-	-	-	-
A-C	-	-	-	-	391.82	587.73	-	-	-	-	-
D-AB	0.49	11.52	0.95	B	249.81	374.71	61.00	9.77	0.68	61.01	9.77
D-BC	0.17	10.41	0.20	B	59.43	89.14	14.19	9.55	0.16	14.19	9.55
C-ABD	0.02	7.21	0.02	A	7.34	11.01	1.28	6.98	0.01	1.28	6.98
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	154.16	231.24	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	96.37	24.09	95.55	0.00	564.59	0.171	0.00	0.20	7.662	A
A-BCD	0.00	0.00	0.00	0.00	579.97	0.000	0.00	0.00	0.000	A
A-B	28.61	7.15	28.61	0.00	-	-	-	-	-	-
A-C	321.47	80.37	321.47	0.00	-	-	-	-	-	-
D-AB	204.72	51.18	202.86	0.00	637.61	0.321	0.00	0.47	8.246	A
D-BC	48.99	12.25	48.51	0.00	455.80	0.107	0.00	0.12	8.830	A
C-ABD	6.02	1.51	5.98	0.00	538.84	0.011	0.00	0.01	6.755	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	126.48	31.62	126.48	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.07	28.77	114.83	0.00	545.41	0.211	0.20	0.26	8.357	A
A-BCD	0.00	0.00	0.00	0.00	574.94	0.000	0.00	0.00	0.000	A
A-B	34.16	8.54	34.16	0.00	-	-	-	-	-	-
A-C	383.86	95.97	383.86	0.00	-	-	-	-	-	-
D-AB	244.67	61.17	244.02	0.00	627.18	0.390	0.47	0.63	9.379	A
D-BC	58.29	14.57	58.16	0.00	439.38	0.133	0.12	0.15	9.440	A
C-ABD	7.19	1.80	7.18	0.00	525.84	0.014	0.01	0.01	6.940	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.03	37.76	151.03	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	140.93	35.23	140.52	0.00	518.35	0.272	0.26	0.37	9.517	A
A-BCD	0.00	0.00	0.00	0.00	568.00	0.000	0.00	0.00	0.000	A
A-B	41.84	10.46	41.84	0.00	-	-	-	-	-	-
A-C	470.14	117.53	470.14	0.00	-	-	-	-	-	-
D-AB	300.03	75.01	298.80	0.00	612.49	0.490	0.63	0.94	11.430	B
D-BC	71.01	17.75	70.81	0.00	416.80	0.170	0.15	0.20	10.398	B
C-ABD	8.81	2.20	8.79	0.00	507.86	0.017	0.01	0.02	7.212	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	184.97	46.24	184.97	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	140.93	35.23	140.92	0.00	518.23	0.272	0.37	0.37	9.541	A
A-BCD	0.00	0.00	0.00	0.00	568.00	0.000	0.00	0.00	0.000	A
A-B	41.84	10.46	41.84	0.00	-	-	-	-	-	-
A-C	470.14	117.53	470.14	0.00	-	-	-	-	-	-
D-AB	300.03	75.01	299.99	0.00	612.40	0.490	0.94	0.95	11.519	B
D-BC	71.01	17.75	71.00	0.00	416.73	0.170	0.20	0.20	10.412	B
C-ABD	8.81	2.20	8.81	0.00	507.86	0.017	0.02	0.02	7.212	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	184.97	46.24	184.97	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	115.07	28.77	115.47	0.00	545.24	0.211	0.37	0.27	8.385	A
A-BCD	0.00	0.00	0.00	0.00	574.93	0.000	0.00	0.00	0.000	A
A-B	34.16	8.54	34.16	0.00	-	-	-	-	-	-
A-C	383.86	95.97	383.86	0.00	-	-	-	-	-	-
D-AB	244.67	61.17	245.87	0.00	627.04	0.390	0.95	0.65	9.473	A
D-BC	58.28	14.57	58.48	0.00	439.27	0.133	0.20	0.15	9.458	A
C-ABD	7.19	1.80	7.21	0.00	525.84	0.014	0.02	0.01	6.943	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.03	37.76	151.03	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	96.37	24.09	96.62	0.00	564.37	0.171	0.27	0.21	7.700	A
A-BCD	0.00	0.00	0.00	0.00	579.95	0.000	0.00	0.00	0.000	A
A-B	28.61	7.15	28.61	0.00	-	-	-	-	-	-
A-C	321.47	80.37	321.47	0.00	-	-	-	-	-	-
D-AB	204.73	51.18	205.42	0.00	637.37	0.321	0.65	0.48	8.347	A
D-BC	48.98	12.24	49.11	0.00	455.61	0.108	0.15	0.12	8.860	A
C-ABD	6.02	1.51	6.03	0.00	538.84	0.011	0.01	0.01	6.756	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	126.48	31.62	126.48	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	2.94	0.20	7.662	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.69	0.45	8.246	A	A
D-BC	1.72	0.11	8.830	A	A
C-ABD	0.17	0.01	6.755	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.87	0.26	8.357	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	9.13	0.61	9.379	A	A
D-BC	2.21	0.15	9.440	A	A
C-ABD	0.21	0.01	6.940	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.35	0.36	9.517	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.44	0.90	11.430	B	B
D-BC	2.95	0.20	10.398	B	B
C-ABD	0.26	0.02	7.212	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.55	0.37	9.541	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	14.17	0.94	11.519	B	B
D-BC	3.05	0.20	10.412	B	B
C-ABD	0.26	0.02	7.212	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	4.18	0.28	8.385	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.15	0.68	9.473	A	A
D-BC	2.39	0.16	9.458	A	A
C-ABD	0.21	0.01	6.943	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	3.20	0.21	7.700	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.42	0.49	8.347	A	A
D-BC	1.87	0.12	8.860	A	A
C-ABD	0.17	0.01	6.756	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2037 Opening Year +15 (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2037 Opening Year +15 (Without Dev), FM	2037 Opening Year +15 (Without Dev)	FM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		17.05	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	422.00	100.000
B	ONE HOUR	✓	182.00	100.000
C	ONE HOUR	✓	202.00	100.000
D	ONE HOUR	✓	478.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	31.000	391.000	0.000
	B	63.000	0.000	119.000	0.000
	C	185.000	17.000	0.000	0.000
	D	358.000	29.000	91.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.35	0.00	0.65	0.00
	C	0.92	0.08	0.00	0.00
	D	0.75	0.06	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.44	13.98	0.77	B	167.01	250.51	48.02	11.50	0.53	48.03	11.50
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	28.45	42.67	-	-	-	-	-
A-C	-	-	-	-	358.79	538.18	-	-	-	-	-
D-AB	0.70	20.32	2.27	C	344.54	516.81	125.94	14.62	1.40	125.98	14.63
D-BC	0.27	12.15	0.38	B	94.08	141.12	25.37	10.79	0.28	25.38	10.79
C-ABD	0.04	7.22	0.04	A	15.60	23.40	2.73	6.99	0.03	2.73	6.99
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	169.76	254.64	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	137.02	34.25	135.60	0.00	517.20	0.265	0.00	0.36	9.400	A
A-BCD	0.00	0.00	0.00	0.00	575.67	0.000	0.00	0.00	0.000	A
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	294.37	73.59	294.37	0.00	-	-	-	-	-	-
D-AB	282.11	70.53	278.87	0.00	623.33	0.453	0.00	0.81	10.358	B
D-BC	77.76	19.44	76.93	0.00	450.41	0.173	0.00	0.21	9.618	A
C-ABD	12.80	3.20	12.70	0.00	545.03	0.023	0.00	0.02	6.763	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	139.28	34.82	139.28	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	163.61	40.90	163.08	0.00	492.94	0.332	0.36	0.49	10.896	B
A-BCD	0.00	0.00	0.00	0.00	569.79	0.000	0.00	0.00	0.000	A
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	351.50	87.88	351.50	0.00	-	-	-	-	-	-
D-AB	337.37	84.34	335.80	0.00	609.69	0.553	0.81	1.20	13.066	B
D-BC	92.34	23.09	92.10	0.00	432.78	0.213	0.21	0.27	10.559	B
C-ABD	15.28	3.82	15.26	0.00	533.23	0.029	0.02	0.03	6.949	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	166.31	41.58	166.31	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	200.39	50.10	199.31	0.00	458.35	0.437	0.49	0.76	13.837	B
A-BCD	0.00	0.00	0.00	0.00	561.70	0.000	0.00	0.00	0.000	A
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	430.50	107.62	430.50	0.00	-	-	-	-	-	-
D-AB	414.11	103.53	410.13	0.00	590.45	0.701	1.20	2.20	19.529	C
D-BC	112.18	28.04	111.76	0.00	408.57	0.275	0.27	0.37	12.112	B
C-ABD	18.72	4.68	18.69	0.00	516.93	0.036	0.03	0.04	7.224	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	203.69	50.92	203.69	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	200.39	50.10	200.34	0.00	457.74	0.438	0.76	0.77	13.979	B
A-BCD	0.00	0.00	0.00	0.00	561.69	0.000	0.00	0.00	0.000	A
A-B	34.13	8.53	34.13	0.00	-	-	-	-	-	-
A-C	430.50	107.62	430.50	0.00	-	-	-	-	-	-
D-AB	414.13	103.53	413.84	0.00	590.26	0.702	2.20	2.27	20.317	C
D-BC	112.16	28.04	112.15	0.00	408.39	0.275	0.37	0.38	12.152	B
C-ABD	18.72	4.68	18.72	0.00	516.93	0.036	0.04	0.04	7.224	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	203.69	50.92	203.69	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	163.61	40.90	164.66	0.00	492.11	0.332	0.77	0.51	11.030	B
A-BCD	0.00	0.00	0.00	0.00	569.78	0.000	0.00	0.00	0.000	A
A-B	27.87	6.97	27.87	0.00	-	-	-	-	-	-
A-C	351.50	87.88	351.50	0.00	-	-	-	-	-	-
D-AB	337.39	84.35	341.35	0.00	609.39	0.554	2.27	1.28	13.622	B
D-BC	92.32	23.08	92.72	0.00	432.52	0.213	0.38	0.28	10.608	B
C-ABD	15.28	3.82	15.31	0.00	533.23	0.029	0.04	0.03	6.950	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	166.31	41.58	166.31	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	137.02	34.25	137.58	0.00	516.47	0.265	0.51	0.37	9.517	A
A-BCD	0.00	0.00	0.00	0.00	575.64	0.000	0.00	0.00	0.000	A
A-B	23.34	5.83	23.34	0.00	-	-	-	-	-	-
A-C	294.37	73.59	294.37	0.00	-	-	-	-	-	-
D-AB	282.13	70.53	283.87	0.00	622.89	0.453	1.28	0.84	10.674	B
D-BC	77.73	19.43	77.99	0.00	450.07	0.173	0.28	0.21	9.681	A
C-ABD	12.80	3.20	12.82	0.00	545.03	0.023	0.03	0.02	6.766	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	139.28	34.82	139.28	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.09	0.34	9.400	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	11.43	0.76	10.358	B	B
D-BC	2.96	0.20	9.618	A	A
C-ABD	0.36	0.02	6.763	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.07	0.47	10.896	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	17.11	1.14	13.066	B	B
D-BC	3.90	0.26	10.559	B	B
C-ABD	0.44	0.03	6.949	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	10.80	0.72	13.837	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	30.03	2.00	19.529	C	B
D-BC	5.38	0.36	12.112	B	B
C-ABD	0.56	0.04	7.224	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	11.45	0.76	13.979	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	33.60	2.24	20.317	C	C
D-BC	5.61	0.37	12.152	B	B
C-ABD	0.56	0.04	7.224	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.93	0.53	11.030	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	20.50	1.37	13.622	B	B
D-BC	4.27	0.28	10.608	B	B
C-ABD	0.45	0.03	6.950	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	5.68	0.38	9.517	A	A
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	13.28	0.89	10.674	B	B
D-BC	3.26	0.22	9.681	A	A
C-ABD	0.36	0.02	6.766	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2037 Opening Year +15 (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 Opening Year +15 (With Dev), AM	2037 Opening Year +15 (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		18.03	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	525.00	100.000
B	ONE HOUR	✓	281.00	100.000
C	ONE HOUR	✓	179.00	100.000
D	ONE HOUR	✓	345.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	98.000	427.000	0.000
	B	115.000	0.000	166.000	0.000
	C	168.000	11.000	0.000	0.000
	D	261.000	28.000	56.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.19	0.81	0.00
	B	0.41	0.00	0.59	0.00
	C	0.94	0.06	0.00	0.00
	D	0.76	0.08	0.16	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.69	25.95	2.15	D	257.85	386.78	115.03	17.84	1.28	115.07	17.85
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	89.93	134.89	-	-	-	-	-
A-C	-	-	-	-	391.82	587.73	-	-	-	-	-
D-AB	0.51	12.07	1.01	B	254.02	381.03	64.23	10.11	0.71	64.24	10.12
D-BC	0.19	11.26	0.23	B	62.55	93.83	15.88	10.15	0.18	15.88	10.15
C-ABD	0.02	7.45	0.02	A	10.09	15.14	1.81	7.18	0.02	1.81	7.18
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	154.16	231.24	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	211.55	52.89	208.73	0.00	504.45	0.419	0.00	0.71	12.064	B
A-BCD	0.00	0.00	0.00	0.00	579.35	0.000	0.00	0.00	0.000	A
A-B	73.78	18.44	73.78	0.00	-	-	-	-	-	-
A-C	321.47	80.37	321.47	0.00	-	-	-	-	-	-
D-AB	208.05	52.01	206.11	0.00	631.33	0.330	0.00	0.48	8.429	A
D-BC	51.68	12.92	51.16	0.00	441.40	0.117	0.00	0.13	9.213	A
C-ABD	8.28	2.07	8.22	0.00	530.19	0.016	0.00	0.02	6.896	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	126.48	31.62	126.48	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	252.61	63.15	251.15	0.00	480.63	0.526	0.71	1.07	15.584	C
A-BCD	0.00	0.00	0.00	0.00	574.20	0.000	0.00	0.00	0.000	A
A-B	88.10	22.03	88.10	0.00	-	-	-	-	-	-
A-C	383.86	95.97	383.86	0.00	-	-	-	-	-	-
D-AB	248.75	62.19	248.06	0.00	619.86	0.401	0.48	0.66	9.664	A
D-BC	61.40	15.35	61.25	0.00	421.82	0.146	0.13	0.17	9.979	A
C-ABD	9.89	2.47	9.87	0.00	515.52	0.019	0.02	0.02	7.118	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.03	37.76	151.03	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	309.39	77.35	305.39	0.00	447.12	0.692	1.07	2.07	24.706	C
A-BCD	0.00	0.00	0.00	0.00	567.09	0.000	0.00	0.00	0.000	A
A-B	107.90	26.98	107.90	0.00	-	-	-	-	-	-
A-C	470.14	117.53	470.14	0.00	-	-	-	-	-	-
D-AB	305.25	76.31	303.89	0.00	603.52	0.506	0.66	1.00	11.957	B
D-BC	74.61	18.65	74.36	0.00	394.98	0.189	0.17	0.23	11.211	B
C-ABD	12.11	3.03	12.09	0.00	495.22	0.024	0.02	0.02	7.450	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	184.97	46.24	184.97	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	309.39	77.35	309.06	0.00	446.90	0.692	2.07	2.15	25.953	D
A-BCD	0.00	0.00	0.00	0.00	567.09	0.000	0.00	0.00	0.000	A
A-B	107.90	26.98	107.90	0.00	-	-	-	-	-	-
A-C	470.14	117.53	470.14	0.00	-	-	-	-	-	-
D-AB	305.26	76.31	305.21	0.00	603.37	0.506	1.00	1.01	12.068	B
D-BC	74.59	18.65	74.59	0.00	394.42	0.189	0.23	0.23	11.255	B
C-ABD	12.11	3.03	12.11	0.00	495.22	0.024	0.02	0.02	7.450	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	184.97	46.24	184.97	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	252.61	63.15	256.63	0.00	480.30	0.526	2.15	1.15	16.369	C
A-BCD	0.00	0.00	0.00	0.00	574.19	0.000	0.00	0.00	0.000	A
A-B	88.10	22.03	88.10	0.00	-	-	-	-	-	-
A-C	383.86	95.97	383.86	0.00	-	-	-	-	-	-
D-AB	248.77	62.19	250.08	0.00	619.64	0.401	1.01	0.68	9.775	A
D-BC	61.38	15.35	61.62	0.00	421.02	0.146	0.23	0.17	10.022	B
C-ABD	9.89	2.47	9.91	0.00	515.52	0.019	0.02	0.02	7.119	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	151.03	37.76	151.03	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	211.55	52.89	213.19	0.00	504.02	0.420	1.15	0.74	12.448	B
A-BCD	0.00	0.00	0.00	0.00	579.33	0.000	0.00	0.00	0.000	A
A-B	73.78	18.44	73.78	0.00	-	-	-	-	-	-
A-C	321.47	80.37	321.47	0.00	-	-	-	-	-	-
D-AB	208.07	52.02	208.80	0.00	631.03	0.330	0.68	0.50	8.542	A
D-BC	51.67	12.92	51.82	0.00	440.76	0.117	0.17	0.13	9.259	A
C-ABD	8.28	2.07	8.30	0.00	530.19	0.016	0.02	0.02	6.897	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	126.48	31.62	126.48	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.92	0.66	12.064	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	6.95	0.46	8.429	A	A
D-BC	1.89	0.13	9.213	A	A
C-ABD	0.23	0.02	6.896	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	15.17	1.01	15.584	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	9.55	0.64	9.664	A	A
D-BC	2.46	0.16	9.979	A	A
C-ABD	0.29	0.02	7.118	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	27.94	1.86	24.706	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	14.26	0.95	11.957	B	B
D-BC	3.34	0.22	11.211	B	B
C-ABD	0.37	0.02	7.450	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	31.80	2.12	25.953	D	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	15.08	1.01	12.068	B	B
D-BC	3.46	0.23	11.255	B	B
C-ABD	0.38	0.03	7.450	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	18.53	1.24	16.369	C	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	10.66	0.71	9.775	A	A
D-BC	2.67	0.18	10.022	B	B
C-ABD	0.30	0.02	7.119	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	11.67	0.78	12.448	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	7.73	0.52	8.542	A	A
D-BC	2.07	0.14	9.259	A	A
C-ABD	0.24	0.02	6.897	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Existing Layout - 2037 Opening Year +15 (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2037 Opening Year +15 (With Dev), FM	2037 Opening Year +15 (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	Circular Road-Academy St	Crossroads	Two-way	A,B,C,D		20.23	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	R161 Circular Road (E)		Major
B	B	Academy St		Minor
C	C	R161 Circular Road (W)		Major
D	D	R896 Bridge St		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	10.25		0.00		2.20	55.00	✓	0.00
C	10.25		0.00	✓	2.20	55.00	✓	3.00

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	3.80										12	30
D	Two lanes		3.85	3.85								22	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	605.814	-	-	-	-	-	-	0.191	0.273	0.191	-	-	-
1	B-A	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	-	0.201	0.201	0.101
1	B-C	694.309	0.087	0.219	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	535.954	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	C-B	605.814	0.191	0.191	0.273	-	-	-	-	-	-	-	-	-
1	D-A	694.111	-	-	-	-	-	-	0.219	-	0.087	-	-	-
1	D-B, nearside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-B, offside lane	539.307	0.127	0.127	0.289	-	-	-	0.202	0.202	0.080	-	-	-
1	D-C	539.307	-	0.127	0.289	0.101	0.202	0.202	0.202	0.202	0.080	-	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	469.00	100.000
B	ONE HOUR	✓	237.00	100.000
C	ONE HOUR	✓	207.00	100.000
D	ONE HOUR	✓	490.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	78.000	391.000	0.000
	B	97.000	0.000	140.000	0.000
	C	185.000	22.000	0.000	0.000
	D	358.000	41.000	91.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.17	0.83	0.00
	B	0.41	0.00	0.59	0.00
	C	0.89	0.11	0.00	0.00
	D	0.73	0.08	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-ACD	0.61	21.11	1.49	C	217.48	326.21	84.18	15.48	0.94	84.20	15.49
A-BCD	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	71.57	107.36	-	-	-	-	-
A-C	-	-	-	-	358.79	538.18	-	-	-	-	-
D-AB	0.73	22.51	2.55	C	351.26	526.89	137.57	15.67	1.53	137.61	15.67
D-BC	0.29	12.73	0.41	B	98.38	147.56	27.51	11.19	0.31	27.51	11.19
C-ABD	0.05	7.45	0.05	A	20.19	30.28	3.62	7.18	0.04	3.62	7.18
C-D	-	-	-	-	0.00	0.00	-	-	-	-	-
C-A	-	-	-	-	169.76	254.64	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	178.43	44.61	176.22	0.00	496.04	0.360	0.00	0.55	11.183	B
A-BCD	0.00	0.00	0.00	0.00	574.64	0.000	0.00	0.00	0.000	A
A-B	58.72	14.68	58.72	0.00	-	-	-	-	-	-
A-C	294.37	73.59	294.37	0.00	-	-	-	-	-	-
D-AB	287.35	71.84	283.93	0.00	616.57	0.466	0.00	0.85	10.718	B
D-BC	81.55	20.39	80.66	0.00	444.84	0.183	0.00	0.22	9.862	A
C-ABD	16.56	4.14	16.44	0.00	538.26	0.031	0.00	0.03	6.896	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	139.28	34.82	139.28	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	213.06	53.26	212.03	0.00	469.47	0.454	0.55	0.81	13.928	B
A-BCD	0.00	0.00	0.00	0.00	568.55	0.000	0.00	0.00	0.000	A
A-B	70.12	17.53	70.12	0.00	-	-	-	-	-	-
A-C	351.50	87.88	351.50	0.00	-	-	-	-	-	-
D-AB	343.87	85.97	342.13	0.00	601.96	0.571	0.85	1.29	13.759	B
D-BC	96.63	24.16	96.36	0.00	425.98	0.227	0.22	0.29	10.913	B
C-ABD	19.78	4.94	19.75	0.00	525.15	0.038	0.03	0.04	7.122	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	166.31	41.58	166.31	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	260.94	65.24	258.38	0.00	431.67	0.605	0.81	1.45	20.468	C
A-BCD	0.00	0.00	0.00	0.00	560.18	0.000	0.00	0.00	0.000	A
A-B	85.88	21.47	85.88	0.00	-	-	-	-	-	-
A-C	430.50	107.62	430.50	0.00	-	-	-	-	-	-
D-AB	422.51	105.63	417.83	0.00	581.26	0.727	1.29	2.46	21.415	C
D-BC	116.99	29.25	116.53	0.00	400.07	0.292	0.29	0.41	12.674	B
C-ABD	24.22	6.06	24.18	0.00	507.03	0.048	0.04	0.05	7.455	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	203.69	50.92	203.69	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	260.94	65.24	260.77	0.00	430.87	0.606	1.45	1.49	21.108	C
A-BCD	0.00	0.00	0.00	0.00	560.17	0.000	0.00	0.00	0.000	A
A-B	85.88	21.47	85.88	0.00	-	-	-	-	-	-
A-C	430.50	107.62	430.50	0.00	-	-	-	-	-	-
D-AB	422.53	105.63	422.15	0.00	581.02	0.727	2.46	2.55	22.513	C
D-BC	116.97	29.24	116.95	0.00	399.69	0.293	0.41	0.41	12.729	B
C-ABD	24.22	6.06	24.22	0.00	507.03	0.048	0.05	0.05	7.455	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	203.69	50.92	203.69	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	213.06	53.26	215.59	0.00	468.39	0.455	1.49	0.86	14.377	B
A-BCD	0.00	0.00	0.00	0.00	568.53	0.000	0.00	0.00	0.000	A
A-B	70.12	17.53	70.12	0.00	-	-	-	-	-	-
A-C	351.50	87.88	351.50	0.00	-	-	-	-	-	-
D-AB	343.90	85.98	348.59	0.00	601.59	0.572	2.55	1.38	14.481	B
D-BC	96.60	24.15	97.04	0.00	425.43	0.227	0.41	0.30	10.979	B
C-ABD	19.78	4.94	19.82	0.00	525.15	0.038	0.05	0.04	7.126	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	166.31	41.58	166.31	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-ACD	178.43	44.61	179.56	0.00	495.15	0.360	0.86	0.57	11.449	B
A-BCD	0.00	0.00	0.00	0.00	574.60	0.000	0.00	0.00	0.000	A
A-B	58.72	14.68	58.72	0.00	-	-	-	-	-	-
A-C	294.37	73.59	294.37	0.00	-	-	-	-	-	-
D-AB	287.39	71.85	289.34	0.00	616.07	0.466	1.38	0.89	11.084	B
D-BC	81.51	20.38	81.79	0.00	444.32	0.183	0.30	0.23	9.939	A
C-ABD	16.56	4.14	16.59	0.00	538.26	0.031	0.04	0.03	6.900	A
C-D	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-A	139.28	34.82	139.28	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	7.80	0.52	11.183	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	12.02	0.80	10.718	B	B
D-BC	3.18	0.21	9.862	A	A
C-ABD	0.47	0.03	6.896	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	11.56	0.77	13.928	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	18.28	1.22	13.759	B	B
D-BC	4.21	0.28	10.913	B	B
C-ABD	0.58	0.04	7.122	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	20.02	1.33	20.468	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	33.23	2.22	21.415	C	C
D-BC	5.86	0.39	12.674	B	B
C-ABD	0.75	0.05	7.455	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	22.12	1.47	21.108	C	C
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	37.73	2.52	22.513	C	C
D-BC	6.12	0.41	12.729	B	B
C-ABD	0.75	0.05	7.455	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	13.67	0.91	14.377	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	22.23	1.48	14.481	B	B
D-BC	4.63	0.31	10.979	B	B
C-ABD	0.59	0.04	7.126	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-ACD	9.00	0.60	11.449	B	B
A-BCD	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-
D-AB	14.07	0.94	11.084	B	B
D-BC	3.52	0.23	9.939	A	A
C-ABD	0.48	0.03	6.900	A	A
C-D	-	-	-	-	-
C-A	-	-	-	-	-

Dublin Road Academy Street

Junctions 8
PICADY 8 - Priority Intersection Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2019
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Filename: J3 - Dublin Road Academy Street PICADY Model.arc8

Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC2060\J3 - Dublin Road Academy Street PICADY Model

Report generation date: 03/10/2019 13:02:47

- » (Default Analysis Set) - 2017 Base Year, AM
- » (Default Analysis Set) - 2017 Base Year, PM
- » (Default Analysis Set) - 2022 Opening Year (Without Dev), AM
- » (Default Analysis Set) - 2022 Opening Year (Without Dev), PM
- » (Default Analysis Set) - 2022 Opening Year (With Dev), AM
- » (Default Analysis Set) - 2022 Opening Year (With Dev), PM
- » (Default Analysis Set) - 2027 Opening Year +5 (Without Dev), AM
- » (Default Analysis Set) - 2027 Opening Year +5 (Without Dev), PM
- » (Default Analysis Set) - 2027 Opening Year +5 (With Dev), AM
- » (Default Analysis Set) - 2027 Opening Year +5 (With Dev), PM
- » (Default Analysis Set) - 2037 Opening Year +15 (Without Dev), AM
- » (Default Analysis Set) - 2037 Opening Year +15 (Without Dev), PM
- » (Default Analysis Set) - 2037 Opening Year +15 (With Dev), AM
- » (Default Analysis Set) - 2037 Opening Year +15 (With Dev), PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
A1 - 2017 Base Year								
Stream B-C	0.04	7.48	0.04	9.31	0.08	7.88	0.07	9.70
Stream B-A	0.14	12.74	0.13		0.23	13.77	0.19	
Stream C-AB	0.03	4.04	0.02		0.06	4.26	0.04	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
A1 - 2022 Opening Year (With Dev)								
Stream B-C	0.06	9.77	0.06	21.58	0.09	8.92	0.09	13.03
Stream B-A	1.17	25.23	0.55		0.51	17.83	0.34	
Stream C-AB	0.03	4.04	0.02		0.08	4.29	0.05	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
A1 - 2022 Opening Year (Without Dev)								
Stream B-C	0.05	7.66	0.04	9.76	0.09	8.12	0.08	10.11
Stream B-A	0.16	13.53	0.14		0.26	14.78	0.21	
Stream C-AB	0.03	3.99	0.02		0.07	4.23	0.05	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	

Stream A-C	-	-	-	-	-	-	-	
A1 - 2027 Opening Year +5 (With Dev)								
Stream B-C	0.07	10.40	0.06	24.40	0.10	9.26	0.09	14.12
Stream B-A	1.36	29.19	0.58		0.58	19.72	0.37	
Stream C-AB	0.04	3.99	0.03		0.08	4.24	0.05	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
A1 - 2027 Opening Year +5 (Without Dev)								
Stream B-C	0.05	7.88	0.05	10.12	0.09	8.40	0.08	10.74
Stream B-A	0.18	14.56	0.15		0.30	16.00	0.23	
Stream C-AB	0.03	3.95	0.03		0.07	4.18	0.05	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
A1 - 2037 Opening Year +15 (With Dev)								
Stream B-C	0.07	11.03	0.07	27.34	0.11	9.61	0.10	15.09
Stream B-A	1.54	33.06	0.62		0.65	21.72	0.40	
Stream C-AB	0.04	3.95	0.03		0.09	4.21	0.06	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	
A1 - 2037 Opening Year +15 (Without Dev)								
Stream B-C	0.05	8.06	0.05	10.63	0.10	8.64	0.09	11.16
Stream B-A	0.20	15.50	0.17		0.33	17.19	0.25	
Stream C-AB	0.04	3.91	0.03		0.09	4.15	0.06	
Stream C-A	-	-	-		-	-	-	
Stream A-B	-	-	-		-	-	-	
Stream A-C	-	-	-		-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

- "D1 - 2017 Base Year, AM" model duration: 07:45 - 09:15
- "D2 - 2017 Base Year, PM" model duration: 16:45 - 18:15
- "D3 - 2022 Opening Year (Without Dev), AM" model duration: 07:45 - 09:15
- "D4 - 2022 Opening Year (Without Dev), PM" model duration: 16:45 - 18:15
- "D5 - 2022 Opening Year (With Dev), AM" model duration: 07:45 - 09:15
- "D6 - 2022 Opening Year (With Dev), PM" model duration: 16:45 - 18:15
- "D7 - 2027 Opening Year +5 (Without Dev), AM" model duration: 07:45 - 09:15
- "D8 - 2027 Opening Year +5 (Without Dev), PM" model duration: 16:45 - 18:15
- "D9 - 2027 Opening Year +5 (With Dev), AM" model duration: 07:45 - 09:15
- "D10 - 2027 Opening Year +5 (With Dev), PM" model duration: 16:45 - 18:15
- "D11 - 2037 Opening Year +15 (Without Dev), AM" model duration: 07:45 - 09:15
- "D12 - 2037 Opening Year +15 (Without Dev), PM" model duration: 16:45 - 18:15
- "D13 - 2037 Opening Year +15 (With Dev), AM" model duration: 07:45 - 09:15
- "D14 - 2037 Opening Year +15 (With Dev), PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 03/10/2019 13:02:39

File summary

Title	J3 - Dublin Road Academy Street
Location	Navan, Ireland
Site Number	
Date	26/02/2019
Version	V1
Status	Preliminary
Identifier	
Client	4wayconsulting
Jobnumber	ADC2060
Enumerator	ADCteam
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - 2017 Base Year, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2017 Base Year, AM	2017 Base Year	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		9.31	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	613.573	0.084	0.212	0.133	0.303
1	B-C	694.224	0.080	0.202	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	864.00	100.000
B	ONE HOUR	✓	56.00	100.000
C	ONE HOUR	✓	713.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	121.000	743.000
	B	37.000	0.000	19.000
	C	706.000	7.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.14	0.86
	B	0.66	0.00	0.34
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.04	7.48	0.04	A	17.43	26.15	3.04	6.98	0.03	3.04	6.98
B-A	0.13	12.74	0.14	B	33.95	50.93	9.26	10.91	0.10	9.26	10.91
C-AB	0.02	4.04	0.03	A	16.06	24.09	1.78	4.44	0.02	1.78	4.44
C-A	-	-	-	-	638.20	957.30	-	-	-	-	-
A-B	-	-	-	-	111.03	166.55	-	-	-	-	-
A-C	-	-	-	-	681.79	1022.68	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	14.30	3.58	14.20	0.00	564.50	0.025	0.00	0.03	6.542	A
B-A	27.86	6.96	27.57	0.00	415.04	0.067	0.00	0.07	9.284	A
C-AB	11.01	2.75	10.96	0.00	902.65	0.012	0.00	0.01	4.037	A
C-A	525.77	131.44	525.77	0.00	-	-	-	-	-	-
A-B	91.10	22.77	91.10	0.00	-	-	-	-	-	-
A-C	559.37	139.84	559.37	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.08	4.27	17.05	0.00	538.49	0.032	0.03	0.03	6.903	A
B-A	33.26	8.32	33.16	0.00	376.53	0.088	0.07	0.10	10.482	B
C-AB	15.06	3.77	15.04	0.00	942.92	0.016	0.01	0.02	3.879	A
C-A	625.91	156.48	625.91	0.00	-	-	-	-	-	-
A-B	108.78	27.19	108.78	0.00	-	-	-	-	-	-
A-C	667.94	166.99	667.94	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	20.92	5.23	20.88	0.00	502.02	0.042	0.03	0.04	7.481	A
B-A	40.74	10.18	40.55	0.00	323.25	0.126	0.10	0.14	12.726	B
C-AB	22.08	5.52	22.05	0.00	996.20	0.022	0.02	0.03	3.694	A
C-A	762.95	190.74	762.95	0.00	-	-	-	-	-	-
A-B	133.22	33.31	133.22	0.00	-	-	-	-	-	-
A-C	818.06	204.51	818.06	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	20.92	5.23	20.92	0.00	501.89	0.042	0.04	0.04	7.483	A
B-A	40.74	10.18	40.73	0.00	323.28	0.126	0.14	0.14	12.740	B
C-AB	22.09	5.52	22.09	0.00	996.21	0.022	0.03	0.03	3.697	A
C-A	762.93	190.73	762.93	0.00	-	-	-	-	-	-
A-B	133.22	33.31	133.22	0.00	-	-	-	-	-	-
A-C	818.06	204.51	818.06	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.08	4.27	17.12	0.00	538.27	0.032	0.04	0.03	6.907	A
B-A	33.26	8.32	33.44	0.00	376.60	0.088	0.14	0.10	10.495	B
C-AB	15.08	3.77	15.11	0.00	942.94	0.016	0.03	0.02	3.879	A
C-A	625.89	156.47	625.89	0.00	-	-	-	-	-	-
A-B	108.78	27.19	108.78	0.00	-	-	-	-	-	-
A-C	667.94	166.99	667.94	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	14.30	3.58	14.33	0.00	564.24	0.025	0.03	0.03	6.548	A
B-A	27.86	6.96	27.96	0.00	415.11	0.067	0.10	0.07	9.302	A
C-AB	11.05	2.76	11.07	0.00	902.67	0.012	0.02	0.01	4.039	A
C-A	525.74	131.43	525.74	0.00	-	-	-	-	-	-
A-B	91.10	22.77	91.10	0.00	-	-	-	-	-	-
A-C	559.37	139.84	559.37	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.38	0.03	6.542	A	A
B-A	1.03	0.07	9.284	A	A
C-AB	0.20	0.01	4.037	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.48	0.03	6.903	A	A
B-A	1.40	0.09	10.482	B	B
C-AB	0.28	0.02	3.879	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.63	0.04	7.481	A	A
B-A	2.06	0.14	12.726	B	B
C-AB	0.41	0.03	3.694	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.65	0.04	7.483	A	A
B-A	2.14	0.14	12.740	B	B
C-AB	0.41	0.03	3.697	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.51	0.03	6.907	A	A
B-A	1.52	0.10	10.495	B	B
C-AB	0.28	0.02	3.879	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.40	0.03	6.548	A	A
B-A	1.12	0.07	9.302	A	A
C-AB	0.21	0.01	4.039	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2017 Base Year, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2017 Base Year, FM	2017 Base Year	FM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		9.70	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	606.678	0.083	0.209	0.132	0.299
1	B-C	702.929	0.081	0.204	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	915.00	100.000
B	ONE HOUR	✓	88.00	100.000
C	ONE HOUR	✓	641.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	153.000	762.000
	B	55.000	0.000	33.000
	C	629.000	12.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.17	0.83
	B	0.63	0.00	0.38
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.07	7.88	0.08	A	30.28	45.42	5.49	7.26	0.06	5.49	7.26
B-A	0.19	13.77	0.23	B	50.47	75.70	14.63	11.60	0.16	14.63	11.60
C-AB	0.04	4.26	0.06	A	27.60	41.40	3.58	5.19	0.04	3.58	5.19
C-A	-	-	-	-	560.59	840.89	-	-	-	-	-
A-B	-	-	-	-	140.40	210.59	-	-	-	-	-
A-C	-	-	-	-	699.22	1048.84	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.84	6.21	24.66	0.00	561.98	0.044	0.00	0.05	6.698	A
B-A	41.41	10.35	40.97	0.00	411.90	0.101	0.00	0.11	9.690	A
C-AB	17.85	4.46	17.75	0.00	863.07	0.021	0.00	0.02	4.258	A
C-A	464.73	116.18	464.73	0.00	-	-	-	-	-	-
A-B	115.19	28.80	115.19	0.00	-	-	-	-	-	-
A-C	573.67	143.42	573.67	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	29.67	7.42	29.62	0.00	533.39	0.056	0.05	0.06	7.145	A
B-A	49.44	12.36	49.28	0.00	374.15	0.132	0.11	0.15	11.075	B
C-AB	24.30	6.08	24.26	0.00	897.54	0.027	0.02	0.03	4.122	A
C-A	551.94	137.99	551.94	0.00	-	-	-	-	-	-
A-B	137.54	34.39	137.54	0.00	-	-	-	-	-	-
A-C	685.02	171.26	685.02	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	36.33	9.08	36.25	0.00	493.15	0.074	0.06	0.08	7.878	A
B-A	60.56	15.14	60.25	0.00	321.87	0.188	0.15	0.23	13.743	B
C-AB	40.58	10.15	40.48	0.00	974.68	0.042	0.03	0.06	3.853	A
C-A	665.17	166.29	665.17	0.00	-	-	-	-	-	-
A-B	168.46	42.11	168.46	0.00	-	-	-	-	-	-
A-C	838.98	209.74	838.98	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	36.33	9.08	36.33	0.00	492.91	0.074	0.08	0.08	7.884	A
B-A	60.56	15.14	60.55	0.00	321.93	0.188	0.23	0.23	13.772	B
C-AB	40.62	10.15	40.62	0.00	974.74	0.042	0.06	0.06	3.854	A
C-A	665.14	166.28	665.14	0.00	-	-	-	-	-	-
A-B	168.46	42.11	168.46	0.00	-	-	-	-	-	-
A-C	838.98	209.74	838.98	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	29.67	7.42	29.75	0.00	532.99	0.056	0.08	0.06	7.156	A
B-A	49.44	12.36	49.74	0.00	374.27	0.132	0.23	0.15	11.102	B
C-AB	24.34	6.08	24.43	0.00	897.61	0.027	0.06	0.03	4.124	A
C-A	551.91	137.98	551.91	0.00	-	-	-	-	-	-
A-B	137.54	34.39	137.54	0.00	-	-	-	-	-	-
A-C	685.02	171.26	685.02	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.84	6.21	24.90	0.00	561.52	0.044	0.06	0.05	6.711	A
B-A	41.41	10.35	41.57	0.00	412.03	0.100	0.15	0.11	9.723	A
C-AB	17.91	4.48	17.95	0.00	863.12	0.021	0.03	0.03	4.259	A
C-A	464.67	116.17	464.67	0.00	-	-	-	-	-	-
A-B	115.19	28.80	115.19	0.00	-	-	-	-	-	-
A-C	573.67	143.42	573.67	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.67	0.04	6.698	A	A
B-A	1.59	0.11	9.690	A	A
C-AB	0.37	0.02	4.258	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	7.145	A	A
B-A	2.19	0.15	11.075	B	B
C-AB	0.52	0.03	4.122	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.16	0.08	7.878	A	A
B-A	3.28	0.22	13.743	B	B
C-AB	0.89	0.06	3.853	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.19	0.08	7.884	A	A
B-A	3.43	0.23	13.772	B	B
C-AB	0.90	0.06	3.854	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.91	0.06	7.156	A	A
B-A	2.40	0.16	11.102	B	B
C-AB	0.53	0.04	4.124	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.71	0.05	6.711	A	A
B-A	1.75	0.12	9.723	A	A
C-AB	0.38	0.03	4.259	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2022 Opening Year (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationsh
2022 Opening Year (Without Dev), AM	2022 Opening Year (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		9.76	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	613.608	0.084	0.212	0.133	0.303
1	B-C	694.179	0.080	0.202	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	907.00	100.000
B	ONE HOUR	✓	59.00	100.000
C	ONE HOUR	✓	748.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	127.000	780.000
	B	39.000	0.000	20.000
	C	741.000	7.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.14	0.86
	B	0.66	0.00	0.34
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.04	7.66	0.05	A	18.35	27.53	3.26	7.11	0.04	3.26	7.11
B-A	0.14	13.53	0.16	B	35.79	53.68	10.22	11.42	0.11	10.22	11.42
C-AB	0.02	3.99	0.03	A	16.76	25.14	1.85	4.40	0.02	1.85	4.40
C-A	-	-	-	-	669.62	1004.43	-	-	-	-	-
A-B	-	-	-	-	116.54	174.81	-	-	-	-	-
A-C	-	-	-	-	715.74	1073.61	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.06	3.76	14.95	0.00	557.83	0.027	0.00	0.03	6.629	A
B-A	29.36	7.34	29.05	0.00	405.27	0.072	0.00	0.08	9.561	A
C-AB	11.40	2.85	11.34	0.00	913.03	0.012	0.00	0.01	3.992	A
C-A	551.73	137.93	551.73	0.00	-	-	-	-	-	-
A-B	95.61	23.90	95.61	0.00	-	-	-	-	-	-
A-C	587.22	146.81	587.22	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.98	4.49	17.95	0.00	530.41	0.034	0.03	0.03	7.024	A
B-A	35.06	8.77	34.95	0.00	364.87	0.096	0.08	0.10	10.908	B
C-AB	15.68	3.92	15.66	0.00	954.90	0.016	0.01	0.02	3.831	A
C-A	656.76	164.19	656.76	0.00	-	-	-	-	-	-
A-B	114.17	28.54	114.17	0.00	-	-	-	-	-	-
A-C	701.20	175.30	701.20	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	22.02	5.51	21.97	0.00	491.84	0.045	0.03	0.05	7.661	A
B-A	42.94	10.73	42.72	0.00	308.96	0.139	0.10	0.16	13.511	B
C-AB	23.16	5.79	23.13	0.00	1010.04	0.023	0.02	0.03	3.646	A
C-A	800.40	200.10	800.40	0.00	-	-	-	-	-	-
A-B	139.83	34.96	139.83	0.00	-	-	-	-	-	-
A-C	858.80	214.70	858.80	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	22.02	5.51	22.02	0.00	491.68	0.045	0.05	0.05	7.664	A
B-A	42.94	10.73	42.93	0.00	308.99	0.139	0.16	0.16	13.530	B
C-AB	23.18	5.79	23.18	0.00	1010.05	0.023	0.03	0.03	3.649	A
C-A	800.39	200.10	800.39	0.00	-	-	-	-	-	-
A-B	139.83	34.96	139.83	0.00	-	-	-	-	-	-
A-C	858.80	214.70	858.80	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.98	4.49	18.02	0.00	530.16	0.034	0.05	0.04	7.029	A
B-A	35.06	8.77	35.27	0.00	364.94	0.096	0.16	0.11	10.926	B
C-AB	15.70	3.92	15.73	0.00	954.93	0.016	0.03	0.02	3.832	A
C-A	656.74	164.19	656.74	0.00	-	-	-	-	-	-
A-B	114.17	28.54	114.17	0.00	-	-	-	-	-	-
A-C	701.20	175.30	701.20	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.06	3.76	15.09	0.00	557.54	0.027	0.04	0.03	6.638	A
B-A	29.36	7.34	29.48	0.00	405.35	0.072	0.11	0.08	9.582	A
C-AB	11.43	2.86	11.46	0.00	913.06	0.013	0.02	0.01	3.994	A
C-A	551.70	137.92	551.70	0.00	-	-	-	-	-	-
A-B	95.61	23.90	95.61	0.00	-	-	-	-	-	-
A-C	587.22	146.81	587.22	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.40	0.03	6.629	A	A
B-A	1.11	0.07	9.561	A	A
C-AB	0.21	0.01	3.992	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.51	0.03	7.024	A	A
B-A	1.53	0.10	10.908	B	B
C-AB	0.29	0.02	3.831	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.68	0.05	7.661	A	A
B-A	2.29	0.15	13.511	B	B
C-AB	0.42	0.03	3.646	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.70	0.05	7.664	A	A
B-A	2.39	0.16	13.530	B	B
C-AB	0.43	0.03	3.649	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.54	0.04	7.029	A	A
B-A	1.67	0.11	10.926	B	B
C-AB	0.29	0.02	3.832	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.43	0.03	6.638	A	A
B-A	1.22	0.08	9.582	A	A
C-AB	0.21	0.01	3.994	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2022 Opening Year (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 Opening Year (Without Dev), PM	2022 Opening Year (Without Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		10.11	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	606.410	0.083	0.209	0.132	0.299
1	B-C	703.267	0.081	0.204	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	961.00	100.000
B	ONE HOUR	✓	93.00	100.000
C	ONE HOUR	✓	673.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	161.000	800.000
	B	58.000	0.000	35.000
	C	660.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.17	0.83
	B	0.62	0.00	0.38
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.08	8.12	0.09	A	32.12	48.17	5.96	7.43	0.07	5.96	7.43
B-A	0.21	14.78	0.26	B	53.22	79.83	16.27	12.23	0.18	16.28	12.23
C-AB	0.05	4.23	0.07	A	31.35	47.03	4.14	5.29	0.05	4.14	5.29
C-A	-	-	-	-	586.20	879.31	-	-	-	-	-
A-B	-	-	-	-	147.74	221.60	-	-	-	-	-
A-C	-	-	-	-	734.09	1101.14	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.35	6.59	26.15	0.00	554.91	0.047	0.00	0.05	6.807	A
B-A	43.67	10.92	43.18	0.00	401.93	0.109	0.00	0.12	10.022	B
C-AB	19.98	5.00	19.87	0.00	871.76	0.023	0.00	0.03	4.226	A
C-A	486.69	121.67	486.69	0.00	-	-	-	-	-	-
A-B	121.21	30.30	121.21	0.00	-	-	-	-	-	-
A-C	602.28	150.57	602.28	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.46	7.87	31.41	0.00	524.70	0.060	0.05	0.06	7.297	A
B-A	52.14	13.04	51.96	0.00	362.30	0.144	0.12	0.17	11.592	B
C-AB	27.37	6.84	27.33	0.00	907.75	0.030	0.03	0.04	4.088	A
C-A	577.64	144.41	577.64	0.00	-	-	-	-	-	-
A-B	144.74	36.18	144.74	0.00	-	-	-	-	-	-
A-C	719.18	179.80	719.18	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	38.54	9.63	38.44	0.00	481.98	0.080	0.06	0.09	8.114	A
B-A	63.86	15.96	63.49	0.00	307.42	0.208	0.17	0.26	14.736	B
C-AB	46.62	11.66	46.50	0.00	990.09	0.047	0.04	0.07	3.814	A
C-A	694.36	173.59	694.36	0.00	-	-	-	-	-	-
A-B	177.26	44.32	177.26	0.00	-	-	-	-	-	-
A-C	880.82	220.20	880.82	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	38.54	9.63	38.53	0.00	481.70	0.080	0.09	0.09	8.123	A
B-A	63.86	15.96	63.85	0.00	307.48	0.208	0.26	0.26	14.776	B
C-AB	46.67	11.67	46.66	0.00	990.16	0.047	0.07	0.07	3.815	A
C-A	694.32	173.58	694.32	0.00	-	-	-	-	-	-
A-B	177.26	44.32	177.26	0.00	-	-	-	-	-	-
A-C	880.82	220.20	880.82	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.46	7.87	31.55	0.00	524.24	0.060	0.09	0.06	7.307	A
B-A	52.14	13.04	52.50	0.00	362.43	0.144	0.26	0.17	11.630	B
C-AB	27.42	6.85	27.54	0.00	907.83	0.030	0.07	0.04	4.090	A
C-A	577.60	144.40	577.60	0.00	-	-	-	-	-	-
A-B	144.74	36.18	144.74	0.00	-	-	-	-	-	-
A-C	719.18	179.80	719.18	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.35	6.59	26.41	0.00	554.41	0.048	0.06	0.05	6.818	A
B-A	43.67	10.92	43.85	0.00	402.07	0.109	0.17	0.12	10.056	B
C-AB	20.06	5.01	20.10	0.00	871.82	0.023	0.04	0.03	4.228	A
C-A	486.61	121.65	486.61	0.00	-	-	-	-	-	-
A-B	121.21	30.30	121.21	0.00	-	-	-	-	-	-
A-C	602.28	150.57	602.28	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.72	0.05	6.807	A	A
B-A	1.73	0.12	10.022	B	B
C-AB	0.42	0.03	4.226	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.93	0.06	7.297	A	A
B-A	2.41	0.16	11.592	B	B
C-AB	0.59	0.04	4.088	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.26	0.08	8.114	A	A
B-A	3.69	0.25	14.736	B	B
C-AB	1.05	0.07	3.814	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.30	0.09	8.123	A	A
B-A	3.88	0.26	14.776	B	B
C-AB	1.06	0.07	3.815	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.99	0.07	7.307	A	A
B-A	2.66	0.18	11.630	B	B
C-AB	0.60	0.04	4.090	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.77	0.05	6.818	A	A
B-A	1.91	0.13	10.056	B	B
C-AB	0.43	0.03	4.228	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2022 Opening Year (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 Opening Year (With Dev), AM	2022 Opening Year (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		21.58	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	639.596	0.087	0.221	0.139	0.315
1	B-C	661.372	0.076	0.192	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1002.00	100.000
B	ONE HOUR	✓	175.00	100.000
C	ONE HOUR	✓	748.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	222.000	780.000
	B	155.000	0.000	20.000
	C	741.000	7.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.89	0.00	0.11
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.06	9.77	0.06	A	18.35	27.53	3.90	8.51	0.04	3.90	8.51
B-A	0.55	25.23	1.17	D	142.23	213.35	62.61	17.61	0.70	62.62	17.61
C-AB	0.02	4.04	0.03	A	17.17	25.76	1.93	4.49	0.02	1.93	4.49
C-A	-	-	-	-	669.20	1003.81	-	-	-	-	-
A-B	-	-	-	-	203.71	305.57	-	-	-	-	-
A-C	-	-	-	-	715.74	1073.61	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.06	3.76	14.93	0.00	497.50	0.030	0.00	0.03	7.458	A
B-A	116.69	29.17	115.16	0.00	416.19	0.280	0.00	0.38	11.902	B
C-AB	11.57	2.89	11.51	0.00	902.84	0.013	0.00	0.01	4.038	A
C-A	551.56	137.89	551.56	0.00	-	-	-	-	-	-
A-B	167.13	41.78	167.13	0.00	-	-	-	-	-	-
A-C	587.22	146.81	587.22	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.98	4.49	17.94	0.00	459.93	0.039	0.03	0.04	8.145	A
B-A	139.34	34.84	138.55	0.00	372.83	0.374	0.38	0.58	15.312	C
C-AB	16.01	4.00	15.99	0.00	943.55	0.017	0.01	0.02	3.881	A
C-A	656.42	164.11	656.42	0.00	-	-	-	-	-	-
A-B	199.57	49.89	199.57	0.00	-	-	-	-	-	-
A-C	701.20	175.30	701.20	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	22.02	5.51	21.95	0.00	392.50	0.056	0.04	0.06	9.711	A
B-A	170.66	42.66	168.45	0.00	312.87	0.545	0.58	1.13	24.551	C
C-AB	23.90	5.97	23.86	0.00	997.40	0.024	0.02	0.03	3.697	A
C-A	799.66	199.92	799.66	0.00	-	-	-	-	-	-
A-B	244.43	61.11	244.43	0.00	-	-	-	-	-	-
A-C	858.80	214.70	858.80	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	22.02	5.51	22.02	0.00	390.40	0.056	0.06	0.06	9.772	A
B-A	170.66	42.66	170.54	0.00	312.89	0.545	1.13	1.17	25.227	D
C-AB	23.91	5.98	23.91	0.00	997.42	0.024	0.03	0.03	3.700	A
C-A	799.65	199.91	799.65	0.00	-	-	-	-	-	-
A-B	244.43	61.11	244.43	0.00	-	-	-	-	-	-
A-C	858.80	214.70	858.80	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	17.98	4.49	18.05	0.00	458.42	0.039	0.06	0.04	8.176	A
B-A	139.34	34.84	141.55	0.00	372.87	0.374	1.17	0.61	15.705	C
C-AB	16.03	4.01	16.07	0.00	943.58	0.017	0.03	0.02	3.881	A
C-A	656.40	164.10	656.40	0.00	-	-	-	-	-	-
A-B	199.57	49.89	199.57	0.00	-	-	-	-	-	-
A-C	701.20	175.30	701.20	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.06	3.76	15.10	0.00	496.58	0.030	0.04	0.03	7.479	A
B-A	116.69	29.17	117.56	0.00	416.21	0.280	0.61	0.40	12.087	B
C-AB	11.61	2.90	11.63	0.00	902.87	0.013	0.02	0.01	4.040	A
C-A	551.52	137.88	551.52	0.00	-	-	-	-	-	-
A-B	167.13	41.78	167.13	0.00	-	-	-	-	-	-
A-C	587.22	146.81	587.22	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.45	0.03	7.458	A	A
B-A	5.42	0.36	11.902	B	B
C-AB	0.21	0.01	4.038	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.59	0.04	8.145	A	A
B-A	8.31	0.55	15.312	C	B
C-AB	0.30	0.02	3.881	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	9.711	A	A
B-A	15.58	1.04	24.551	C	C
C-AB	0.45	0.03	3.697	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.89	0.06	9.772	A	A
B-A	17.30	1.15	25.227	D	C
C-AB	0.45	0.03	3.700	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.63	0.04	8.176	A	A
B-A	9.79	0.65	15.705	C	B
C-AB	0.30	0.02	3.881	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.48	0.03	7.479	A	A
B-A	6.21	0.41	12.087	B	B
C-AB	0.22	0.01	4.040	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2022 Opening Year (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 Opening Year (With Dev), PM	2022 Opening Year (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		13.03	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	621.591	0.085	0.215	0.135	0.307
1	B-C	684.102	0.079	0.199	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1066.00	100.000
B	ONE HOUR	✓	129.00	100.000
C	ONE HOUR	✓	673.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	266.000	800.000
	B	94.000	0.000	35.000
	C	660.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.25	0.75
	B	0.73	0.00	0.27
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	8.92	0.09	A	32.12	48.17	6.44	8.02	0.07	6.44	8.02
B-A	0.34	17.83	0.51	C	86.26	129.38	30.08	13.95	0.33	30.09	13.95
C-AB	0.05	4.29	0.08	A	32.23	48.35	4.38	5.43	0.05	4.38	5.43
C-A	-	-	-	-	585.32	877.99	-	-	-	-	-
A-B	-	-	-	-	244.09	366.13	-	-	-	-	-
A-C	-	-	-	-	734.09	1101.14	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.35	6.59	26.14	0.00	524.64	0.050	0.00	0.05	7.218	A
B-A	70.77	17.69	69.93	0.00	405.28	0.175	0.00	0.21	10.708	B
C-AB	20.31	5.08	20.19	0.00	860.05	0.024	0.00	0.03	4.286	A
C-A	486.36	121.59	486.36	0.00	-	-	-	-	-	-
A-B	200.26	50.06	200.26	0.00	-	-	-	-	-	-
A-C	602.28	150.57	602.28	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.46	7.87	31.40	0.00	491.36	0.064	0.05	0.07	7.826	A
B-A	84.50	21.13	84.15	0.00	363.31	0.233	0.21	0.30	12.878	B
C-AB	28.01	7.00	27.96	0.00	894.60	0.031	0.03	0.04	4.153	A
C-A	577.01	144.25	577.01	0.00	-	-	-	-	-	-
A-B	239.13	59.78	239.13	0.00	-	-	-	-	-	-
A-C	719.18	179.80	719.18	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	38.54	9.63	38.43	0.00	442.66	0.087	0.07	0.09	8.904	A
B-A	103.50	25.87	102.69	0.00	305.26	0.339	0.30	0.50	17.701	C
C-AB	48.30	12.08	48.17	0.00	975.90	0.050	0.04	0.07	3.880	A
C-A	692.68	173.17	692.68	0.00	-	-	-	-	-	-
A-B	292.87	73.22	292.87	0.00	-	-	-	-	-	-
A-C	880.82	220.20	880.82	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	38.54	9.63	38.53	0.00	442.19	0.087	0.09	0.09	8.918	A
B-A	103.50	25.87	103.47	0.00	305.29	0.339	0.50	0.51	17.830	C
C-AB	48.35	12.09	48.35	0.00	975.98	0.050	0.07	0.08	3.882	A
C-A	692.64	173.16	692.64	0.00	-	-	-	-	-	-
A-B	292.87	73.22	292.87	0.00	-	-	-	-	-	-
A-C	880.82	220.20	880.82	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.46	7.87	31.57	0.00	490.74	0.064	0.09	0.07	7.843	A
B-A	84.50	21.13	85.29	0.00	363.40	0.233	0.51	0.31	12.982	B
C-AB	28.05	7.01	28.18	0.00	894.69	0.031	0.08	0.04	4.155	A
C-A	576.96	144.24	576.96	0.00	-	-	-	-	-	-
A-B	239.13	59.78	239.13	0.00	-	-	-	-	-	-
A-C	719.18	179.80	719.18	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.35	6.59	26.41	0.00	524.07	0.050	0.07	0.05	7.236	A
B-A	70.77	17.69	71.14	0.00	405.35	0.175	0.31	0.21	10.785	B
C-AB	20.38	5.10	20.43	0.00	860.11	0.024	0.04	0.03	4.287	A
C-A	486.29	121.57	486.29	0.00	-	-	-	-	-	-
A-B	200.26	50.06	200.26	0.00	-	-	-	-	-	-
A-C	602.28	150.57	602.28	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.76	0.05	7.218	A	A
B-A	2.98	0.20	10.708	B	B
C-AB	0.43	0.03	4.286	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.00	0.07	7.826	A	A
B-A	4.30	0.29	12.878	B	B
C-AB	0.62	0.04	4.153	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.38	0.09	8.904	A	A
B-A	7.08	0.47	17.701	C	B
C-AB	1.12	0.07	3.880	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.42	0.09	8.918	A	A
B-A	7.54	0.50	17.830	C	B
C-AB	1.13	0.08	3.882	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.06	0.07	7.843	A	A
B-A	4.85	0.32	12.982	B	B
C-AB	0.63	0.04	4.155	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.82	0.05	7.236	A	A
B-A	3.33	0.22	10.785	B	B
C-AB	0.44	0.03	4.287	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2027 Opening Year +5 (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2027 Opening Year +5 (Without Dev), AM	2027 Opening Year +5 (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A B C		10.12	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	613.641	0.084	0.212	0.133	0.303
1	B-C	694.139	0.080	0.202	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	956.00	100.000
B	ONE HOUR	✓	62.00	100.000
C	ONE HOUR	✓	789.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	134.000	822.000
	B	41.000	0.000	21.000
	C	781.000	8.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.14	0.86
	B	0.66	0.00	0.34
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.05	7.88	0.05	A	19.27	28.90	3.50	7.27	0.04	3.50	7.27
B-A	0.15	14.56	0.18	B	37.62	56.43	11.36	12.07	0.13	11.36	12.07
C-AB	0.03	3.95	0.03	A	20.10	30.15	2.25	4.47	0.02	2.25	4.47
C-A	-	-	-	-	703.90	1055.85	-	-	-	-	-
A-B	-	-	-	-	122.96	184.44	-	-	-	-	-
A-C	-	-	-	-	754.28	1131.42	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.81	3.95	15.69	0.00	550.29	0.029	0.00	0.03	6.732	A
B-A	30.87	7.72	30.53	0.00	393.91	0.078	0.00	0.08	9.898	A
C-AB	13.54	3.39	13.48	0.00	924.82	0.015	0.00	0.02	3.950	A
C-A	580.46	145.11	580.46	0.00	-	-	-	-	-	-
A-B	100.88	25.22	100.88	0.00	-	-	-	-	-	-
A-C	618.84	154.71	618.84	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	18.88	4.72	18.85	0.00	521.25	0.036	0.03	0.04	7.165	A
B-A	36.86	9.21	36.73	0.00	351.30	0.105	0.08	0.12	11.439	B
C-AB	18.75	4.69	18.73	0.00	968.45	0.019	0.02	0.02	3.789	A
C-A	690.54	172.64	690.54	0.00	-	-	-	-	-	-
A-B	120.46	30.12	120.46	0.00	-	-	-	-	-	-
A-C	738.96	184.74	738.96	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	23.12	5.78	23.07	0.00	480.24	0.048	0.04	0.05	7.873	A
B-A	45.14	11.29	44.89	0.00	292.33	0.154	0.12	0.18	14.534	B
C-AB	27.95	6.99	27.91	0.00	1025.58	0.027	0.02	0.03	3.607	A
C-A	840.75	210.19	840.75	0.00	-	-	-	-	-	-
A-B	147.54	36.88	147.54	0.00	-	-	-	-	-	-
A-C	905.04	226.26	905.04	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	23.12	5.78	23.12	0.00	480.05	0.048	0.05	0.05	7.878	A
B-A	45.14	11.29	45.14	0.00	292.36	0.154	0.18	0.18	14.560	B
C-AB	27.97	6.99	27.97	0.00	1025.60	0.027	0.03	0.03	3.607	A
C-A	840.73	210.18	840.73	0.00	-	-	-	-	-	-
A-B	147.54	36.88	147.54	0.00	-	-	-	-	-	-
A-C	905.04	226.26	905.04	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	18.88	4.72	18.93	0.00	520.96	0.036	0.05	0.04	7.173	A
B-A	36.86	9.21	37.11	0.00	351.37	0.105	0.18	0.12	11.463	B
C-AB	18.78	4.69	18.82	0.00	968.48	0.019	0.03	0.02	3.790	A
C-A	690.52	172.63	690.52	0.00	-	-	-	-	-	-
A-B	120.46	30.12	120.46	0.00	-	-	-	-	-	-
A-C	738.96	184.74	738.96	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.81	3.95	15.84	0.00	549.97	0.029	0.04	0.03	6.739	A
B-A	30.87	7.72	31.00	0.00	393.99	0.078	0.12	0.09	9.920	A
C-AB	13.59	3.40	13.62	0.00	924.85	0.015	0.02	0.02	3.950	A
C-A	580.41	145.10	580.41	0.00	-	-	-	-	-	-
A-B	100.88	25.22	100.88	0.00	-	-	-	-	-	-
A-C	618.84	154.71	618.84	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.43	0.03	6.732	A	A
B-A	1.21	0.08	9.898	A	A
C-AB	0.25	0.02	3.950	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.55	0.04	7.165	A	A
B-A	1.68	0.11	11.439	B	B
C-AB	0.35	0.02	3.789	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.74	0.05	7.873	A	A
B-A	2.58	0.17	14.534	B	B
C-AB	0.52	0.03	3.607	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.75	0.05	7.878	A	A
B-A	2.70	0.18	14.560	B	B
C-AB	0.52	0.03	3.607	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.58	0.04	7.173	A	A
B-A	1.85	0.12	11.463	B	B
C-AB	0.35	0.02	3.790	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.46	0.03	6.739	A	A
B-A	1.33	0.09	9.920	A	A
C-AB	0.25	0.02	3.950	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2027 Opening Year +5 (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2027 Opening Year +5 (Without Dev), PM	2027 Opening Year +5 (Without Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		10.74	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	607.449	0.083	0.210	0.132	0.300
1	B-C	701.955	0.081	0.204	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1012.00	100.000
B	ONE HOUR	✓	97.00	100.000
C	ONE HOUR	✓	709.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	169.000	843.000
	B	61.000	0.000	36.000
	C	696.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.17	0.83
	B	0.63	0.00	0.37
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.08	8.40	0.09	A	33.03	49.55	6.30	7.63	0.07	6.30	7.63
B-A	0.23	16.00	0.30	C	55.97	83.96	18.16	12.98	0.20	18.16	12.98
C-AB	0.05	4.18	0.07	A	33.11	49.67	4.36	5.27	0.05	4.36	5.27
C-A	-	-	-	-	617.48	926.22	-	-	-	-	-
A-B	-	-	-	-	155.08	232.62	-	-	-	-	-
A-C	-	-	-	-	773.55	1160.33	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	27.10	6.78	26.90	0.00	545.77	0.050	0.00	0.05	6.933	A
B-A	45.92	11.48	45.40	0.00	391.75	0.117	0.00	0.13	10.378	B
C-AB	20.75	5.19	20.64	0.00	882.09	0.024	0.00	0.03	4.179	A
C-A	513.02	128.25	513.02	0.00	-	-	-	-	-	-
A-B	127.23	31.81	127.23	0.00	-	-	-	-	-	-
A-C	634.65	158.66	634.65	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	32.36	8.09	32.30	0.00	513.81	0.063	0.05	0.07	7.476	A
B-A	54.84	13.71	54.63	0.00	349.95	0.157	0.13	0.18	12.181	B
C-AB	28.62	7.16	28.58	0.00	919.82	0.031	0.03	0.04	4.039	A
C-A	608.75	152.19	608.75	0.00	-	-	-	-	-	-
A-B	151.93	37.98	151.93	0.00	-	-	-	-	-	-
A-C	757.84	189.46	757.84	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	39.64	9.91	39.54	0.00	468.36	0.085	0.07	0.09	8.393	A
B-A	67.16	16.79	66.73	0.00	292.06	0.230	0.18	0.29	15.939	C
C-AB	49.88	12.47	49.74	0.00	1008.25	0.049	0.04	0.07	3.755	A
C-A	730.75	182.69	730.75	0.00	-	-	-	-	-	-
A-B	186.07	46.52	186.07	0.00	-	-	-	-	-	-
A-C	928.16	232.04	928.16	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	39.64	9.91	39.63	0.00	468.02	0.085	0.09	0.09	8.403	A
B-A	67.16	16.79	67.15	0.00	292.13	0.230	0.29	0.30	15.999	C
C-AB	49.93	12.48	49.92	0.00	1008.33	0.050	0.07	0.07	3.755	A
C-A	730.70	182.67	730.70	0.00	-	-	-	-	-	-
A-B	186.07	46.52	186.07	0.00	-	-	-	-	-	-
A-C	928.16	232.04	928.16	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	32.36	8.09	32.46	0.00	513.27	0.063	0.09	0.07	7.487	A
B-A	54.84	13.71	55.26	0.00	350.10	0.157	0.30	0.19	12.229	B
C-AB	28.67	7.17	28.80	0.00	919.91	0.031	0.07	0.04	4.042	A
C-A	608.71	152.18	608.71	0.00	-	-	-	-	-	-
A-B	151.93	37.98	151.93	0.00	-	-	-	-	-	-
A-C	757.84	189.46	757.84	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	27.10	6.78	27.16	0.00	545.22	0.050	0.07	0.05	6.951	A
B-A	45.92	11.48	46.14	0.00	391.91	0.117	0.19	0.13	10.417	B
C-AB	20.83	5.21	20.88	0.00	882.15	0.024	0.04	0.03	4.179	A
C-A	512.94	128.24	512.94	0.00	-	-	-	-	-	-
A-B	127.23	31.81	127.23	0.00	-	-	-	-	-	-
A-C	634.65	158.66	634.65	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.75	0.05	6.933	A	A
B-A	1.88	0.13	10.378	B	B
C-AB	0.43	0.03	4.179	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.98	0.07	7.476	A	A
B-A	2.65	0.18	12.181	B	B
C-AB	0.61	0.04	4.039	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.34	0.09	8.393	A	A
B-A	4.18	0.28	15.939	C	B
C-AB	1.12	0.07	3.755	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.38	0.09	8.403	A	A
B-A	4.41	0.29	15.999	C	B
C-AB	1.13	0.08	3.755	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.04	0.07	7.487	A	A
B-A	2.95	0.20	12.229	B	B
C-AB	0.63	0.04	4.042	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.81	0.05	6.951	A	A
B-A	2.08	0.14	10.417	B	B
C-AB	0.44	0.03	4.179	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2027 Opening Year +5 (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2027 Opening Year +5 (With Dev), AM	2027 Opening Year +5 (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		24.40	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	639.386	0.087	0.221	0.139	0.315
1	B-C	661.637	0.076	0.192	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1050.00	100.000
B	ONE HOUR	✓	178.00	100.000
C	ONE HOUR	✓	789.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	228.000	822.000
	B	157.000	0.000	21.000
	C	781.000	8.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.22	0.78
	B	0.88	0.00	0.12
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.06	10.40	0.07	B	19.27	28.90	4.26	8.84	0.05	4.26	8.84
B-A	0.58	29.19	1.36	D	144.07	216.10	69.98	19.43	0.78	69.99	19.43
C-AB	0.03	3.99	0.04	A	20.62	30.92	2.35	4.55	0.03	2.35	4.55
C-A	-	-	-	-	703.38	1055.08	-	-	-	-	-
A-B	-	-	-	-	209.22	313.83	-	-	-	-	-
A-C	-	-	-	-	754.28	1131.42	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.81	3.95	15.68	0.00	489.98	0.032	0.00	0.03	7.588	A
B-A	118.20	29.55	116.58	0.00	404.26	0.292	0.00	0.41	12.446	B
C-AB	13.76	3.44	13.69	0.00	914.92	0.015	0.00	0.02	3.994	A
C-A	580.24	145.06	580.24	0.00	-	-	-	-	-	-
A-B	171.65	42.91	171.65	0.00	-	-	-	-	-	-
A-C	618.84	154.71	618.84	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	18.88	4.72	18.84	0.00	449.76	0.042	0.03	0.04	8.352	A
B-A	141.14	35.28	140.24	0.00	358.62	0.394	0.41	0.63	16.415	C
C-AB	19.17	4.79	19.14	0.00	957.47	0.020	0.02	0.02	3.835	A
C-A	690.13	172.53	690.13	0.00	-	-	-	-	-	-
A-B	204.97	51.24	204.97	0.00	-	-	-	-	-	-
A-C	738.96	184.74	738.96	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	23.12	5.78	23.03	0.00	372.53	0.062	0.04	0.07	10.298	B
B-A	172.86	43.22	170.13	0.00	295.52	0.585	0.63	1.31	28.109	D
C-AB	28.88	7.22	28.82	0.00	1013.43	0.028	0.02	0.04	3.655	A
C-A	839.83	209.96	839.83	0.00	-	-	-	-	-	-
A-B	251.03	62.76	251.03	0.00	-	-	-	-	-	-
A-C	905.04	226.26	905.04	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	23.12	5.78	23.12	0.00	369.33	0.063	0.07	0.07	10.397	B
B-A	172.86	43.22	172.69	0.00	295.55	0.585	1.31	1.36	29.187	D
C-AB	28.89	7.22	28.89	0.00	1013.45	0.029	0.04	0.04	3.658	A
C-A	839.81	209.95	839.81	0.00	-	-	-	-	-	-
A-B	251.03	62.76	251.03	0.00	-	-	-	-	-	-
A-C	905.04	226.26	905.04	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	18.88	4.72	18.97	0.00	447.77	0.042	0.07	0.04	8.398	A
B-A	141.14	35.28	143.90	0.00	358.67	0.394	1.36	0.67	16.965	C
C-AB	19.19	4.80	19.24	0.00	957.51	0.020	0.04	0.02	3.839	A
C-A	690.10	172.53	690.10	0.00	-	-	-	-	-	-
A-B	204.97	51.24	204.97	0.00	-	-	-	-	-	-
A-C	738.96	184.74	738.96	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	15.81	3.95	15.85	0.00	488.94	0.032	0.04	0.03	7.612	A
B-A	118.20	29.55	119.18	0.00	404.28	0.292	0.67	0.42	12.672	B
C-AB	13.80	3.45	13.83	0.00	914.96	0.015	0.02	0.02	3.994	A
C-A	580.20	145.05	580.20	0.00	-	-	-	-	-	-
A-B	171.65	42.91	171.65	0.00	-	-	-	-	-	-
A-C	618.84	154.71	618.84	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.48	0.03	7.588	A	A
B-A	5.73	0.38	12.446	B	B
C-AB	0.26	0.02	3.994	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.64	0.04	8.352	A	A
B-A	8.98	0.60	16.415	C	B
C-AB	0.36	0.02	3.835	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.95	0.06	10.298	B	B
B-A	17.79	1.19	28.109	D	C
C-AB	0.55	0.04	3.655	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.99	0.07	10.397	B	B
B-A	20.11	1.34	29.187	D	C
C-AB	0.55	0.04	3.658	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.69	0.05	8.398	A	A
B-A	10.75	0.72	16.965	C	B
C-AB	0.36	0.02	3.839	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.52	0.03	7.612	A	A
B-A	6.62	0.44	12.672	B	B
C-AB	0.26	0.02	3.994	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2027 Opening Year +5 (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2027 Opening Year +5 (With Dev), PM	2027 Opening Year +5 (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		14.12	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	621.667	0.085	0.215	0.135	0.307
1	B-C	684.006	0.079	0.199	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1115.00	100.000
B	ONE HOUR	✓	133.00	100.000
C	ONE HOUR	✓	709.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	272.000	843.000
	B	97.000	0.000	36.000
	C	696.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.24	0.76
	B	0.73	0.00	0.27
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	9.26	0.10	A	33.03	49.55	6.81	8.25	0.08	6.81	8.25
B-A	0.37	19.72	0.58	C	89.01	133.51	33.37	15.00	0.37	33.38	15.00
C-AB	0.05	4.24	0.08	A	34.08	51.12	4.61	5.42	0.05	4.61	5.42
C-A	-	-	-	-	616.51	924.77	-	-	-	-	-
A-B	-	-	-	-	249.59	374.39	-	-	-	-	-
A-C	-	-	-	-	773.55	1160.33	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	27.10	6.78	26.88	0.00	516.62	0.052	0.00	0.05	7.347	A
B-A	73.03	18.26	72.13	0.00	394.34	0.185	0.00	0.22	11.147	B
C-AB	21.10	5.27	20.98	0.00	870.80	0.024	0.00	0.03	4.236	A
C-A	512.68	128.17	512.68	0.00	-	-	-	-	-	-
A-B	204.78	51.19	204.78	0.00	-	-	-	-	-	-
A-C	634.65	158.66	634.65	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	32.36	8.09	32.30	0.00	481.42	0.067	0.05	0.07	8.015	A
B-A	87.20	21.80	86.80	0.00	350.23	0.249	0.22	0.33	13.622	B
C-AB	29.31	7.33	29.25	0.00	907.19	0.032	0.03	0.04	4.100	A
C-A	608.07	152.02	608.07	0.00	-	-	-	-	-	-
A-B	244.52	61.13	244.52	0.00	-	-	-	-	-	-
A-C	757.84	189.46	757.84	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	39.64	9.91	39.52	0.00	429.04	0.092	0.07	0.10	9.239	A
B-A	106.80	26.70	105.83	0.00	289.22	0.369	0.33	0.57	19.525	C
C-AB	51.74	12.93	51.59	0.00	994.76	0.052	0.04	0.08	3.816	A
C-A	728.89	182.22	728.89	0.00	-	-	-	-	-	-
A-B	299.48	74.87	299.48	0.00	-	-	-	-	-	-
A-C	928.16	232.04	928.16	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	39.64	9.91	39.63	0.00	428.43	0.093	0.10	0.10	9.258	A
B-A	106.80	26.70	106.76	0.00	289.26	0.369	0.57	0.58	19.716	C
C-AB	51.79	12.95	51.79	0.00	994.84	0.052	0.08	0.08	3.820	A
C-A	728.83	182.21	728.83	0.00	-	-	-	-	-	-
A-B	299.48	74.87	299.48	0.00	-	-	-	-	-	-
A-C	928.16	232.04	928.16	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	32.36	8.09	32.48	0.00	480.67	0.067	0.10	0.07	8.034	A
B-A	87.20	21.80	88.15	0.00	350.33	0.249	0.58	0.34	13.781	B
C-AB	29.36	7.34	29.50	0.00	907.28	0.032	0.08	0.04	4.103	A
C-A	608.02	152.01	608.02	0.00	-	-	-	-	-	-
A-B	244.52	61.13	244.52	0.00	-	-	-	-	-	-
A-C	757.84	189.46	757.84	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	27.10	6.78	27.17	0.00	515.98	0.053	0.07	0.06	7.364	A
B-A	73.03	18.26	73.46	0.00	394.42	0.185	0.34	0.23	11.232	B
C-AB	21.18	5.29	21.23	0.00	870.86	0.024	0.04	0.03	4.238	A
C-A	512.59	128.15	512.59	0.00	-	-	-	-	-	-
A-B	204.78	51.19	204.78	0.00	-	-	-	-	-	-
A-C	634.65	158.66	634.65	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.80	0.05	7.347	A	A
B-A	3.20	0.21	11.147	B	B
C-AB	0.45	0.03	4.236	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.05	0.07	8.015	A	A
B-A	4.69	0.31	13.622	B	B
C-AB	0.64	0.04	4.100	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.47	0.10	9.239	A	A
B-A	7.99	0.53	19.525	C	B
C-AB	1.20	0.08	3.816	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.52	0.10	9.258	A	A
B-A	8.58	0.57	19.716	C	B
C-AB	1.21	0.08	3.820	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.12	0.07	8.034	A	A
B-A	5.33	0.36	13.781	B	B
C-AB	0.66	0.04	4.103	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	7.364	A	A
B-A	3.59	0.24	11.232	B	B
C-AB	0.46	0.03	4.238	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2037 Opening Year +15 (Without Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 Opening Year +15 (Without Dev), AM	2037 Opening Year +15 (Without Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		10.63	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	613.670	0.084	0.212	0.133	0.303
1	B-C	694.102	0.080	0.202	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	994.00	100.000
B	ONE HOUR	✓	65.00	100.000
C	ONE HOUR	✓	821.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	139.000	855.000
	B	43.000	0.000	22.000
	C	813.000	8.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.14	0.86
	B	0.66	0.00	0.34
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.05	8.06	0.05	A	20.19	30.28	3.74	7.40	0.04	3.74	7.40
B-A	0.17	15.50	0.20	C	39.46	59.19	12.48	12.65	0.14	12.48	12.65
C-AB	0.03	3.91	0.04	A	20.88	31.31	2.32	4.44	0.03	2.32	4.44
C-A	-	-	-	-	732.49	1098.73	-	-	-	-	-
A-B	-	-	-	-	127.55	191.32	-	-	-	-	-
A-C	-	-	-	-	784.56	1176.84	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	16.56	4.14	16.44	0.00	544.27	0.030	0.00	0.03	6.818	A
B-A	32.37	8.09	32.01	0.00	385.14	0.084	0.00	0.09	10.184	B
C-AB	13.97	3.49	13.90	0.00	934.29	0.015	0.00	0.02	3.911	A
C-A	604.12	151.03	604.12	0.00	-	-	-	-	-	-
A-B	104.65	26.16	104.65	0.00	-	-	-	-	-	-
A-C	643.69	160.92	643.69	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	19.78	4.94	19.74	0.00	513.91	0.038	0.03	0.04	7.284	A
B-A	38.66	9.66	38.51	0.00	340.82	0.113	0.09	0.13	11.904	B
C-AB	19.44	4.86	19.41	0.00	979.29	0.020	0.02	0.02	3.749	A
C-A	718.62	179.66	718.62	0.00	-	-	-	-	-	-
A-B	124.96	31.24	124.96	0.00	-	-	-	-	-	-
A-C	768.63	192.16	768.63	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.22	6.06	24.17	0.00	470.86	0.051	0.04	0.05	8.058	A
B-A	47.34	11.84	47.05	0.00	279.49	0.169	0.13	0.20	15.467	C
C-AB	29.18	7.29	29.13	0.00	1037.94	0.028	0.02	0.04	3.567	A
C-A	874.76	218.69	874.76	0.00	-	-	-	-	-	-
A-B	153.04	38.26	153.04	0.00	-	-	-	-	-	-
A-C	941.37	235.34	941.37	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.22	6.06	24.22	0.00	470.64	0.051	0.05	0.05	8.063	A
B-A	47.34	11.84	47.34	0.00	279.53	0.169	0.20	0.20	15.503	C
C-AB	29.20	7.30	29.20	0.00	1037.96	0.028	0.04	0.04	3.570	A
C-A	874.74	218.69	874.74	0.00	-	-	-	-	-	-
A-B	153.04	38.26	153.04	0.00	-	-	-	-	-	-
A-C	941.37	235.34	941.37	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	19.78	4.94	19.83	0.00	513.57	0.039	0.05	0.04	7.294	A
B-A	38.66	9.66	38.94	0.00	340.90	0.113	0.20	0.13	11.935	B
C-AB	19.46	4.87	19.51	0.00	979.32	0.020	0.04	0.02	3.753	A
C-A	718.60	179.65	718.60	0.00	-	-	-	-	-	-
A-B	124.96	31.24	124.96	0.00	-	-	-	-	-	-
A-C	768.63	192.16	768.63	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	16.56	4.14	16.60	0.00	543.92	0.030	0.04	0.03	6.829	A
B-A	32.37	8.09	32.52	0.00	385.23	0.084	0.13	0.09	10.210	B
C-AB	14.02	3.50	14.04	0.00	934.32	0.015	0.02	0.02	3.911	A
C-A	604.08	151.02	604.08	0.00	-	-	-	-	-	-
A-B	104.65	26.16	104.65	0.00	-	-	-	-	-	-
A-C	643.69	160.92	643.69	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.45	0.03	6.818	A	A
B-A	1.30	0.09	10.184	B	B
C-AB	0.26	0.02	3.911	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.58	0.04	7.284	A	A
B-A	1.83	0.12	11.904	B	B
C-AB	0.36	0.02	3.749	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.79	0.05	8.058	A	A
B-A	2.87	0.19	15.467	C	B
C-AB	0.54	0.04	3.567	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.81	0.05	8.063	A	A
B-A	3.02	0.20	15.503	C	B
C-AB	0.54	0.04	3.570	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	7.294	A	A
B-A	2.02	0.13	11.935	B	B
C-AB	0.36	0.02	3.753	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.48	0.03	6.829	A	A
B-A	1.44	0.10	10.210	B	B
C-AB	0.26	0.02	3.911	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2037 Opening Year +15 (Without Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 Opening Year +15 (Without Dev), PM	2037 Opening Year +15 (Without Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		11.16	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	606.431	0.083	0.209	0.132	0.299
1	B-C	703.240	0.081	0.204	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1053.00	100.000
B	ONE HOUR	✓	101.00	100.000
C	ONE HOUR	✓	738.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	176.000	877.000
	B	63.000	0.000	38.000
	C	724.000	14.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.17	0.83
	B	0.62	0.00	0.38
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	8.64	0.10	A	34.87	52.30	6.79	7.79	0.08	6.79	7.79
B-A	0.25	17.19	0.33	C	57.81	86.71	19.78	13.69	0.22	19.78	13.69
C-AB	0.06	4.15	0.09	A	37.23	55.84	5.01	5.39	0.06	5.01	5.39
C-A	-	-	-	-	639.97	959.96	-	-	-	-	-
A-B	-	-	-	-	161.50	242.25	-	-	-	-	-
A-C	-	-	-	-	804.75	1207.13	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	28.61	7.15	28.39	0.00	540.33	0.053	0.00	0.06	7.028	A
B-A	47.43	11.86	46.87	0.00	382.30	0.124	0.00	0.14	10.716	B
C-AB	23.02	5.75	22.89	0.00	889.94	0.026	0.00	0.03	4.152	A
C-A	532.59	133.15	532.59	0.00	-	-	-	-	-	-
A-B	132.50	33.13	132.50	0.00	-	-	-	-	-	-
A-C	660.25	165.06	660.25	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	34.16	8.54	34.10	0.00	506.85	0.067	0.06	0.07	7.615	A
B-A	56.64	14.16	56.40	0.00	338.86	0.167	0.14	0.20	12.735	B
C-AB	31.92	7.98	31.87	0.00	928.98	0.034	0.03	0.05	4.012	A
C-A	631.52	157.88	631.52	0.00	-	-	-	-	-	-
A-B	158.22	39.56	158.22	0.00	-	-	-	-	-	-
A-C	788.41	197.10	788.41	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	41.84	10.46	41.73	0.00	458.95	0.091	0.07	0.10	8.626	A
B-A	69.36	17.34	68.86	0.00	278.70	0.249	0.20	0.32	17.114	C
C-AB	56.64	14.16	56.48	0.00	1022.15	0.055	0.05	0.09	3.727	A
C-A	755.91	188.98	755.91	0.00	-	-	-	-	-	-
A-B	193.78	48.44	193.78	0.00	-	-	-	-	-	-
A-C	965.59	241.40	965.59	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	41.84	10.46	41.84	0.00	458.56	0.091	0.10	0.10	8.638	A
B-A	69.36	17.34	69.35	0.00	278.78	0.249	0.32	0.33	17.187	C
C-AB	56.70	14.18	56.70	0.00	1022.24	0.055	0.09	0.09	3.728	A
C-A	755.85	188.96	755.85	0.00	-	-	-	-	-	-
A-B	193.78	48.44	193.78	0.00	-	-	-	-	-	-
A-C	965.59	241.40	965.59	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	34.16	8.54	34.27	0.00	506.23	0.067	0.10	0.07	7.631	A
B-A	56.64	14.16	57.13	0.00	339.03	0.167	0.33	0.20	12.791	B
C-AB	31.98	7.99	32.14	0.00	929.08	0.034	0.09	0.05	4.016	A
C-A	631.47	157.87	631.47	0.00	-	-	-	-	-	-
A-B	158.22	39.56	158.22	0.00	-	-	-	-	-	-
A-C	788.41	197.10	788.41	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	28.61	7.15	28.67	0.00	539.72	0.053	0.07	0.06	7.044	A
B-A	47.43	11.86	47.67	0.00	382.47	0.124	0.20	0.14	10.760	B
C-AB	23.11	5.78	23.16	0.00	890.01	0.026	0.05	0.03	4.154	A
C-A	532.50	133.12	532.50	0.00	-	-	-	-	-	-
A-B	132.50	33.13	132.50	0.00	-	-	-	-	-	-
A-C	660.25	165.06	660.25	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.81	0.05	7.028	A	A
B-A	2.00	0.13	10.716	B	B
C-AB	0.48	0.03	4.152	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.05	0.07	7.615	A	A
B-A	2.86	0.19	12.735	B	B
C-AB	0.70	0.05	4.012	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.45	0.10	8.626	A	A
B-A	4.62	0.31	17.114	C	B
C-AB	1.31	0.09	3.727	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.49	0.10	8.638	A	A
B-A	4.89	0.33	17.187	C	B
C-AB	1.32	0.09	3.728	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.12	0.07	7.631	A	A
B-A	3.19	0.21	12.791	B	B
C-AB	0.71	0.05	4.016	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.86	0.06	7.044	A	A
B-A	2.22	0.15	10.760	B	B
C-AB	0.50	0.03	4.154	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2037 Opening Year +15 (With Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 Opening Year +15 (With Dev), AM	2037 Opening Year +15 (With Dev)	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		27.34	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	639.145	0.087	0.221	0.139	0.315
1	B-C	661.941	0.076	0.192	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1089.00	100.000
B	ONE HOUR	✓	180.00	100.000
C	ONE HOUR	✓	821.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	234.000	855.000
	B	158.000	0.000	22.000
	C	813.000	8.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.21	0.79
	B	0.88	0.00	0.12
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
From		A	B	C
	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.07	11.03	0.07	B	20.19	30.28	4.62	9.16	0.05	4.62	9.16
B-A	0.62	33.06	1.54	D	144.98	217.48	76.51	21.11	0.85	76.53	21.11
C-AB	0.03	3.95	0.04	A	21.44	32.16	2.43	4.53	0.03	2.43	4.53
C-A	-	-	-	-	731.92	1097.88	-	-	-	-	-
A-B	-	-	-	-	214.72	322.08	-	-	-	-	-
A-C	-	-	-	-	784.56	1176.84	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	16.56	4.14	16.42	0.00	484.16	0.034	0.00	0.04	7.694	A
B-A	118.95	29.74	117.26	0.00	394.89	0.301	0.00	0.42	12.892	B
C-AB	14.20	3.55	14.13	0.00	924.44	0.015	0.00	0.02	3.954	A
C-A	603.89	150.97	603.89	0.00	-	-	-	-	-	-
A-B	176.17	44.04	176.17	0.00	-	-	-	-	-	-
A-C	643.69	160.92	643.69	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	19.78	4.94	19.73	0.00	441.76	0.045	0.04	0.05	8.529	A
B-A	142.04	35.51	141.05	0.00	347.48	0.409	0.42	0.67	17.353	C
C-AB	19.89	4.97	19.86	0.00	968.40	0.021	0.02	0.02	3.794	A
C-A	718.17	179.54	718.17	0.00	-	-	-	-	-	-
A-B	210.36	52.59	210.36	0.00	-	-	-	-	-	-
A-C	768.63	192.16	768.63	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.22	6.06	24.12	0.00	355.20	0.068	0.05	0.07	10.870	B
B-A	173.96	43.49	170.72	0.00	281.93	0.617	0.67	1.48	31.491	D
C-AB	30.19	7.55	30.13	0.00	1025.93	0.029	0.02	0.04	3.614	A
C-A	873.75	218.44	873.75	0.00	-	-	-	-	-	-
A-B	257.04	64.41	257.04	0.00	-	-	-	-	-	-
A-C	941.37	235.34	941.37	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	24.22	6.06	24.22	0.00	350.70	0.069	0.07	0.07	11.026	B
B-A	173.96	43.49	173.72	0.00	281.96	0.617	1.48	1.54	33.065	D
C-AB	30.21	7.55	30.21	0.00	1025.95	0.029	0.04	0.04	3.614	A
C-A	873.73	218.43	873.73	0.00	-	-	-	-	-	-
A-B	257.64	64.41	257.64	0.00	-	-	-	-	-	-
A-C	941.37	235.34	941.37	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	19.78	4.94	19.88	0.00	439.26	0.045	0.07	0.05	8.585	A
B-A	142.04	35.51	145.35	0.00	347.54	0.409	1.54	0.71	18.078	C
C-AB	19.92	4.98	19.97	0.00	968.43	0.021	0.04	0.03	3.797	A
C-A	718.14	179.54	718.14	0.00	-	-	-	-	-	-
A-B	210.36	52.59	210.36	0.00	-	-	-	-	-	-
A-C	768.63	192.16	768.63	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	16.56	4.14	16.61	0.00	483.02	0.034	0.05	0.04	7.720	A
B-A	118.95	29.74	120.04	0.00	394.92	0.301	0.71	0.44	13.150	B
C-AB	14.25	3.56	14.28	0.00	924.48	0.015	0.03	0.02	3.955	A
C-A	603.84	150.96	603.84	0.00	-	-	-	-	-	-
A-B	176.17	44.04	176.17	0.00	-	-	-	-	-	-
A-C	643.69	160.92	643.69	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.51	0.03	7.694	A	A
B-A	5.96	0.40	12.892	B	B
C-AB	0.26	0.02	3.954	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.68	0.05	8.529	A	A
B-A	9.51	0.63	17.353	C	B
C-AB	0.37	0.02	3.794	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.05	0.07	10.870	B	B
B-A	19.79	1.32	31.491	D	C
C-AB	0.57	0.04	3.614	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.10	0.07	11.026	B	B
B-A	22.75	1.52	33.065	D	C
C-AB	0.58	0.04	3.614	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.74	0.05	8.585	A	A
B-A	11.58	0.77	18.078	C	B
C-AB	0.38	0.03	3.797	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.55	0.04	7.720	A	A
B-A	6.92	0.46	13.150	B	B
C-AB	0.27	0.02	3.955	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - 2037 Opening Year +15 (With Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 Opening Year +15 (With Dev), PM	2037 Opening Year +15 (With Dev)	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		15.09	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Dublin Road (e)		Major
B	B	Academy Street		Minor
C	C	Dublin Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	11.75		0.00		2.20	200.00	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				10.00	10.00	7.60	5.70	5.30	✓	3.00	52	83

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	621.114	0.085	0.214	0.135	0.306
1	B-C	684.704	0.079	0.199	-	-
1	C-B	689.785	0.200	0.200	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1158.00	100.000
B	ONE HOUR	✓	138.00	100.000
C	ONE HOUR	✓	738.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	281.000	877.000
	B	100.000	0.000	38.000
	C	724.000	14.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.24	0.76
	B	0.72	0.00	0.28
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.10	9.61	0.11	A	34.87	52.30	7.38	8.47	0.08	7.38	8.47
B-A	0.40	21.72	0.65	C	91.76	137.64	36.87	16.07	0.41	36.87	16.07
C-AB	0.06	4.21	0.09	A	38.38	57.58	5.32	5.55	0.06	5.32	5.55
C-A	-	-	-	-	638.82	958.23	-	-	-	-	-
A-B	-	-	-	-	257.85	386.78	-	-	-	-	-
A-C	-	-	-	-	804.75	1207.13	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	28.61	7.15	28.37	0.00	510.36	0.056	0.00	0.06	7.465	A
B-A	75.29	18.82	74.33	0.00	384.85	0.196	0.00	0.24	11.560	B
C-AB	23.42	5.86	23.29	0.00	878.58	0.027	0.00	0.03	4.209	A
C-A	532.18	133.05	532.18	0.00	-	-	-	-	-	-
A-B	211.55	52.89	211.55	0.00	-	-	-	-	-	-
A-C	660.25	165.06	660.25	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	34.16	8.54	34.09	0.00	473.39	0.072	0.06	0.08	8.194	A
B-A	89.90	22.47	89.44	0.00	339.01	0.265	0.24	0.35	14.396	B
C-AB	32.73	8.18	32.67	0.00	916.30	0.036	0.03	0.05	4.074	A
C-A	630.72	157.68	630.72	0.00	-	-	-	-	-	-
A-B	252.61	63.15	252.61	0.00	-	-	-	-	-	-
A-C	788.41	197.10	788.41	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	41.84	10.46	41.71	0.00	417.32	0.100	0.08	0.11	9.581	A
B-A	110.10	27.53	108.95	0.00	275.60	0.400	0.35	0.64	21.452	C
C-AB	58.89	14.72	58.71	0.00	1008.73	0.058	0.05	0.09	3.789	A
C-A	753.66	188.42	753.66	0.00	-	-	-	-	-	-
A-B	309.39	77.35	309.39	0.00	-	-	-	-	-	-
A-C	965.59	241.40	965.59	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	41.84	10.46	41.84	0.00	416.53	0.100	0.11	0.11	9.607	A
B-A	110.10	27.53	110.06	0.00	275.64	0.399	0.64	0.65	21.723	C
C-AB	58.96	14.74	58.96	0.00	1008.83	0.058	0.09	0.09	3.792	A
C-A	753.59	188.40	753.59	0.00	-	-	-	-	-	-
A-B	309.39	77.35	309.39	0.00	-	-	-	-	-	-
A-C	965.59	241.40	965.59	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	34.16	8.54	34.29	0.00	472.49	0.072	0.11	0.08	8.219	A
B-A	89.90	22.47	91.03	0.00	339.12	0.265	0.65	0.37	14.574	B
C-AB	32.79	8.20	32.97	0.00	916.42	0.036	0.09	0.05	4.077	A
C-A	630.66	157.66	630.66	0.00	-	-	-	-	-	-
A-B	252.61	63.15	252.61	0.00	-	-	-	-	-	-
A-C	788.41	197.10	788.41	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	28.61	7.15	28.68	0.00	509.65	0.056	0.08	0.06	7.488	A
B-A	75.29	18.82	75.77	0.00	384.93	0.196	0.37	0.25	11.661	B
C-AB	23.52	5.88	23.58	0.00	878.65	0.027	0.05	0.03	4.210	A
C-A	532.09	133.02	532.09	0.00	-	-	-	-	-	-
A-B	211.55	52.89	211.55	0.00	-	-	-	-	-	-
A-C	660.25	165.06	660.25	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment
Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.85	0.06	7.465	A	A
B-A	3.41	0.23	11.560	B	B
C-AB	0.50	0.03	4.209	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.13	0.08	8.194	A	A
B-A	5.08	0.34	14.396	B	B
C-AB	0.73	0.05	4.074	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.61	0.11	9.581	A	A
B-A	8.98	0.60	21.452	C	C
C-AB	1.41	0.09	3.789	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.66	0.11	9.607	A	A
B-A	9.72	0.65	21.723	C	C
C-AB	1.42	0.09	3.792	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.21	0.08	8.219	A	A
B-A	5.83	0.39	14.574	B	B
C-AB	0.75	0.05	4.077	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.92	0.06	7.488	A	A
B-A	3.85	0.26	11.661	B	B
C-AB	0.52	0.03	4.210	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Site Access - Academy Street

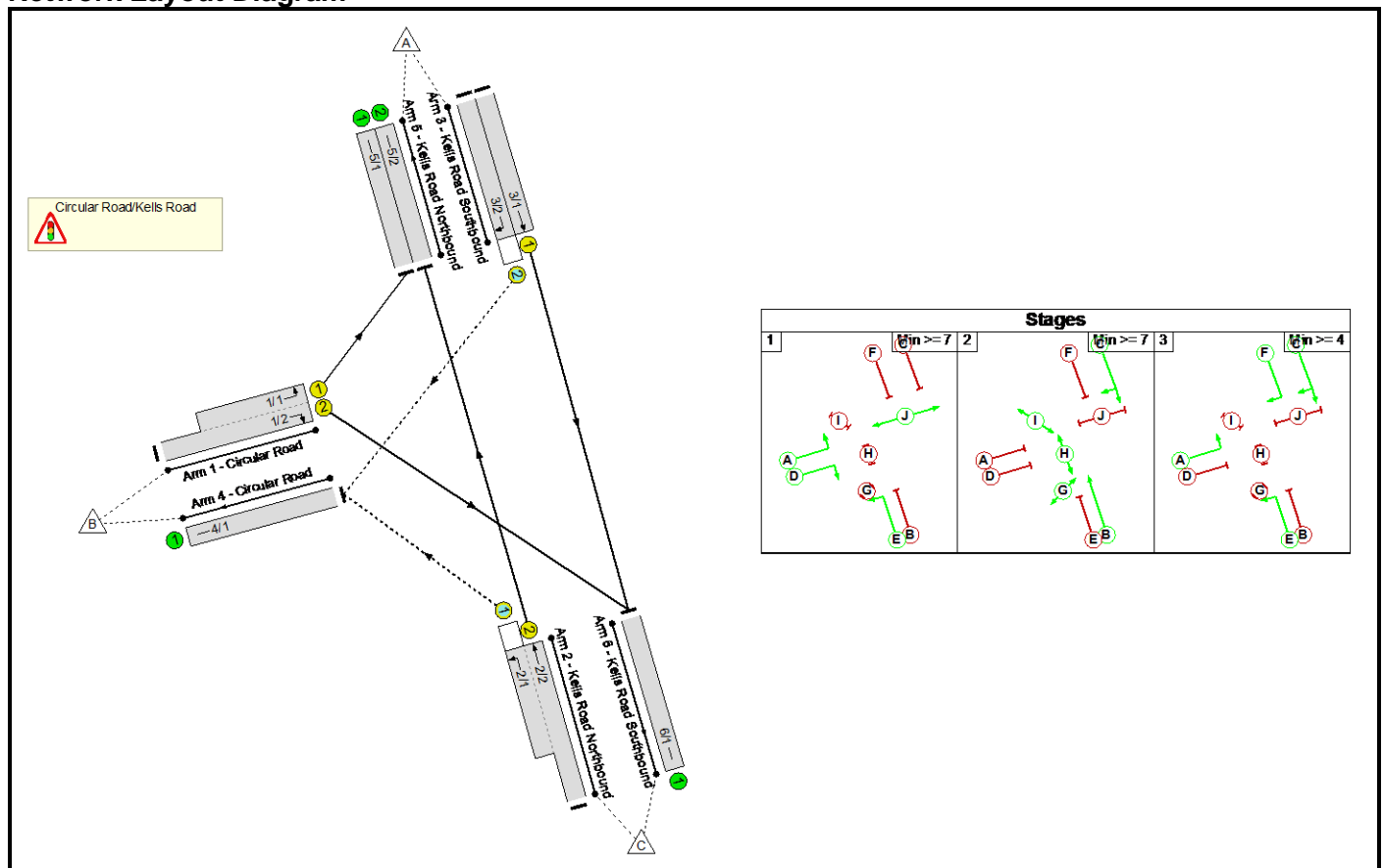
Circular Road - Kells Road

Full Input Data And Results
Full Input Data And Results

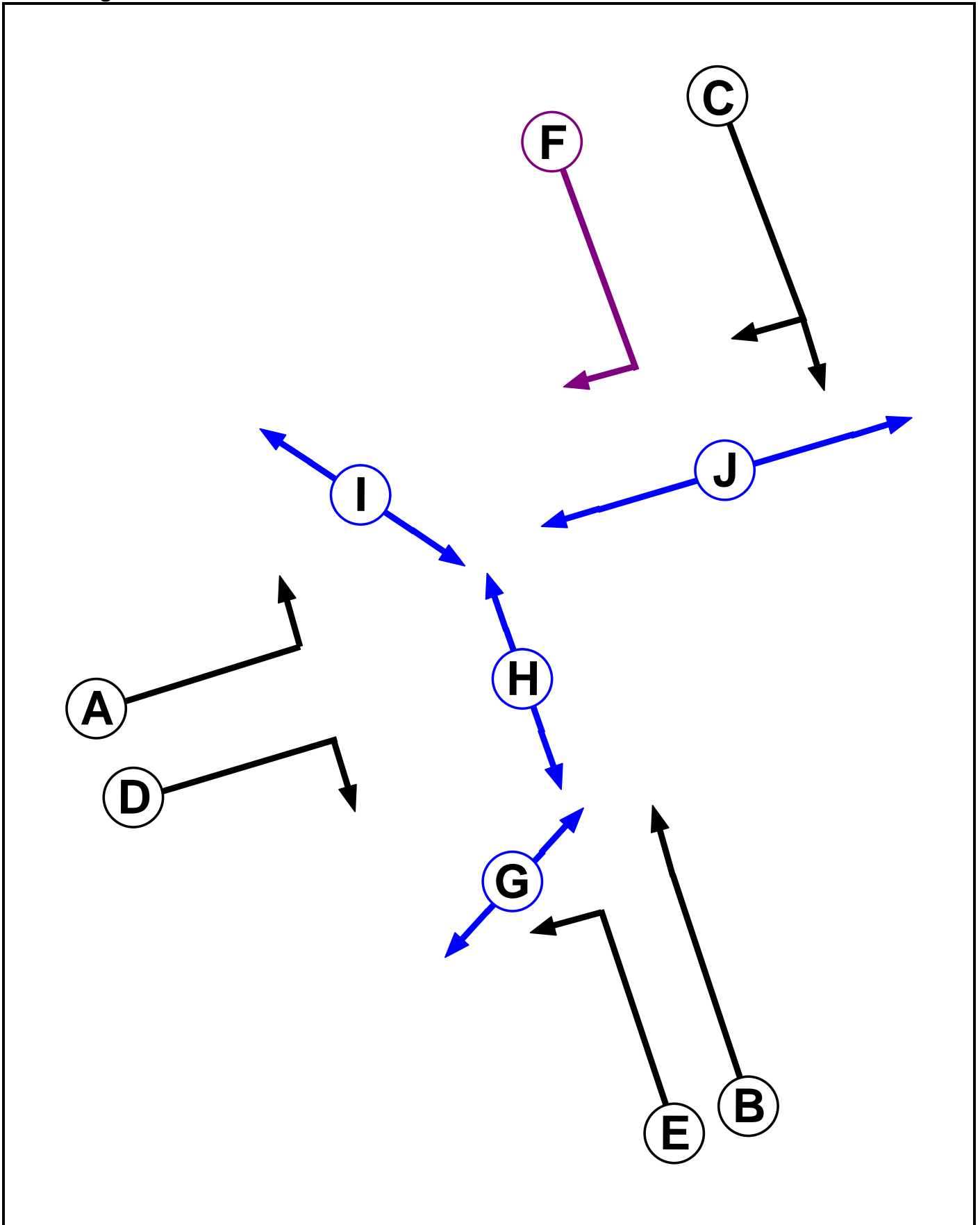
User and Project Details

Project:	P190101 - NAVAN, Academy Street
Title:	NAVAN, Academy Street
Location:	Academy Street
Additional detail:	
File name:	P0162-1106-02 Circular Road - Kells Road RR67.lsg3x
Author:	Ronan Kearns
Company:	Pinnacle Consulting Engineers
Address:	67a Patrick Street, Dun Laoghaire, Co. Dublin

Network Layout Diagram



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	Traffic		7	7
E	Traffic		7	7
F	Ind. Arrow	C	4	4
G	Pedestrian		5	5
H	Pedestrian		7	7
I	Pedestrian		5	5
J	Pedestrian		7	7

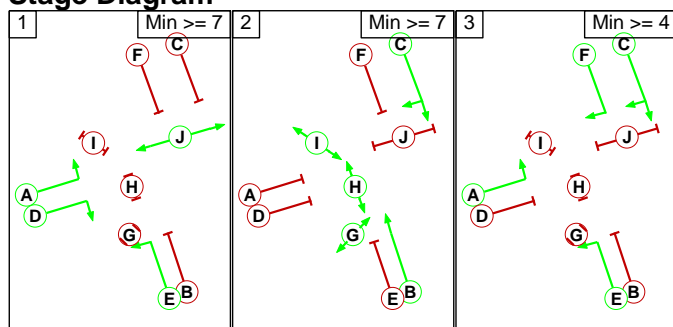
Phase Intergreens Matrix

		Starting Phase									
		A	B	C	D	E	F	G	H	I	J
Terminating Phase	A	-	-	-	-	-	-	-	-	6	-
	B	-	-	-	6	-	6	-	-	-	8
	C	-	-	-	6	-	-	-	-	-	6
	D	-	6	6	-	-	6	-	6	-	-
	E	-	-	-	-	-	-	6	-	-	-
	F	-	6	-	6	-	-	-	8	-	6
	G	-	-	-	-	8	-	-	-	-	-
	H	-	-	-	8	-	8	-	-	-	-
	I	8	-	-	-	-	-	-	-	-	-
	J	-	8	8	-	-	8	-	-	-	-

Phases in Stage

Stage No.	Phases in Stage
1	A D E J
2	B C G H I
3	A C E F

Stage Diagram



Full Input Data And Results

Phase Delays

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

Prohibited Stage Change

	To Stage		
From Stage	1	2	3
	1	8	8
	2	8	8
	3	6	8

Full Input Data And Results

Give-Way Lane Input Data

Junction: Circular Road/Kells Road											
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 (Kells Road Northbound)	4/1 (Left)	1439	0	3/2	1.09	All	2.00	-	0.50	2	2.00
3/2 (Kells Road Southbound)	4/1 (Right)	1439	0	2/2	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Circular Road/Kells Road												
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 (Circular Road)	U	A	2	3	8.7	User	1831	-	-	-	-	-
1/2 (Circular Road)	U	D	2	3	62.6	Geom	-	3.50	0.00	Y	Arm 6 Right	23.50
2/1 (Kells Road Northbound)	O	E	2	3	8.7	Geom	-	3.60	0.00	Y	Arm 4 Left	Inf
2/2 (Kells Road Northbound)	U	B	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 5 Ahead	Inf
3/1 (Kells Road Southbound)	U	C	2	3	41.7	Geom	-	3.30	0.00	Y	Arm 6 Ahead	Inf
3/2 (Kells Road Southbound)	O	C F	2	3	41.7	Geom	-	3.30	0.00	Y	Arm 4 Right	17.00
4/1 (Circular Road)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Kells Road Northbound)	U		2	3	40.0	Inf	-	-	-	-	-	-
5/2 (Kells Road Northbound)	U		2	3	40.0	Inf	-	-	-	-	-	-
6/1 (Kells Road Southbound)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base Model'	08:00	09:00	01:00	
2: 'PM Base Model'	17:00	18:00	01:00	
3: 'AM Opening Year Without Development Flows'	08:00	09:00	01:00	
4: 'PM Opening Year Without Development Flows'	17:00	18:00	01:00	
5: 'AM Opening Year With Development Flows'	08:00	09:00	01:00	
6: 'PM Opening Year With Development Flows'	17:00	18:00	01:00	
7: 'AM Opening Year + 5 Years Without Development Flows'	08:00	09:00	01:00	
8: 'PM Opening Year + 5 Years Without Development Flows'	17:00	18:00	01:00	
9: 'AM Opening Year + 5 Years With Development Flows'	08:00	09:00	01:00	
10: 'PM Opening Year + 5 Years With Development Flows'	17:00	18:00	01:00	
11: 'AM Opening Year + 15 Years Without Development Flows'	08:00	09:00	01:00	
12: 'PM Opening Year + 15 Years Without Development Flows'	17:00	18:00	01:00	
13: 'AM Opening Year + 15 Years With Development Flows'	08:00	09:00	01:00	
14: 'PM Opening Year + 15 Years With Development Flows'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	186	497	683
	B	198	0	197	395
	C	537	221	0	758
	Tot.	735	407	694	1836

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base Model
Junction: Circular Road/Kells Road	
1/1 (short)	198
1/2 (with short)	395(In) 197(Out)
2/1 (short)	221
2/2 (with short)	758(In) 537(Out)
3/1	497
3/2	186
4/1	407
5/1	198
5/2	537
6/1	694

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	134	360	494
	B	255	0	276	531
	C	548	235	0	783
	Tot.	803	369	636	1808

Traffic Lane Flows

Lane	Scenario 2: PM Base Model
Junction: Circular Road/Kells Road	
1/1 (short)	255
1/2 (with short)	531(In) 276(Out)
2/1 (short)	235
2/2 (with short)	783(In) 548(Out)
3/1	360
3/2	134
4/1	369
5/1	255
5/2	548
6/1	636

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'AM Opening Year Without Development Flows' (FG3: 'AM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	195	527	722
	B	208	0	208	416
	C	567	233	0	800
	Tot.	775	428	735	1938

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM Opening Year Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	208
1/2 (with short)	416(In) 208(Out)
2/1 (short)	233
2/2 (with short)	800(In) 567(Out)
3/1	527
3/2	195
4/1	428
5/1	208
5/2	567
6/1	735

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'PM Opening Year Without Development Flows' (FG4: 'PM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	141	381	522
	B	268	0	291	559
	C	584	251	0	835
	Tot.	852	392	672	1916

Traffic Lane Flows

Lane	Scenario 4: PM Opening Year Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	268
1/2 (with short)	559(In) 291(Out)
2/1 (short)	251
2/2 (with short)	835(In) 584(Out)
3/1	381
3/2	141
4/1	392
5/1	268
5/2	584
6/1	672

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'AM Opening Year With Development Flows' (FG5: 'AM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	256	527	783
	B	298	0	208	506
	C	567	233	0	800
	Tot.	865	489	735	2089

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM Opening Year With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	298
1/2 (with short)	506(In) 208(Out)
2/1 (short)	233
2/2 (with short)	800(In) 567(Out)
3/1	527
3/2	256
4/1	489
5/1	298
5/2	567
6/1	735

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: 'PM Opening Year With Development Flows' (FG6: 'PM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	188	381	569
	B	301	0	291	592
	C	584	251	0	835
	Tot.	885	439	672	1996

Traffic Lane Flows

Lane	Scenario 6: PM Opening Year With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	301
1/2 (with short)	592(In) 291(Out)
2/1 (short)	251
2/2 (with short)	835(In) 584(Out)
3/1	381
3/2	188
4/1	439
5/1	301
5/2	584
6/1	672

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'AM Opening Year + 5 Years Without Development Flows' (FG7: 'AM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	206	555	761
	B	219	0	219	438
	C	597	246	0	843
	Tot.	816	452	774	2042

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: AM Opening Year + 5 Years Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	219
1/2 (with short)	438(In) 219(Out)
2/1 (short)	246
2/2 (with short)	843(In) 597(Out)
3/1	555
3/2	206
4/1	452
5/1	219
5/2	597
6/1	774

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: 'PM Opening Year + 5 Years Without Development Flows' (FG8: 'PM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	148	401	549
	B	282	0	306	588
	C	615	264	0	879
	Tot.	897	412	707	2016

Traffic Lane Flows

Lane	Scenario 8: PM Opening Year + 5 Years Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	282
1/2 (with short)	588(In) 306(Out)
2/1 (short)	264
2/2 (with short)	879(In) 615(Out)
3/1	401
3/2	148
4/1	412
5/1	282
5/2	615
6/1	707

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: 'AM Opening Year + 5 Years With Development Flows' (FG9: 'AM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	266	555	821
	B	309	0	219	528
	C	597	246	0	843
	Tot.	906	512	774	2192

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: AM Opening Year + 5 Years With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	309
1/2 (with short)	528(In) 219(Out)
2/1 (short)	246
2/2 (with short)	843(In) 597(Out)
3/1	555
3/2	266
4/1	512
5/1	309
5/2	597
6/1	774

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: 'PM Opening Year + 5 Years With Development Flows' (FG10: 'PM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	195	401	596
	B	315	0	306	621
	C	615	264	0	879
	Tot.	930	459	707	2096

Traffic Lane Flows

Lane	Scenario 10: PM Opening Year + 5 Years With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	315
1/2 (with short)	621(In) 306(Out)
2/1 (short)	264
2/2 (with short)	879(In) 615(Out)
3/1	401
3/2	195
4/1	459
5/1	315
5/2	615
6/1	707

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 11: 'AM Opening Year + 15 Years Without Development Flows' (FG11: 'AM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	214	578	792
	B	228	0	228	456
	C	622	256	0	878
	Tot.	850	470	806	2126

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: AM Opening Year + 15 Years Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	228
1/2 (with short)	456(In) 228(Out)
2/1 (short)	256
2/2 (with short)	878(In) 622(Out)
3/1	578
3/2	214
4/1	470
5/1	228
5/2	622
6/1	806

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 12: 'PM Opening Year + 15 Years Without Development Flows' (FG12: 'PM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	154	418	572
	B	294	0	319	613
	C	640	275	0	915
	Tot.	934	429	737	2100

Traffic Lane Flows

Lane	Scenario 12: PM Opening Year + 15 Years Without Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	294
1/2 (with short)	613(In) 319(Out)
2/1 (short)	275
2/2 (with short)	915(In) 640(Out)
3/1	418
3/2	154
4/1	429
5/1	294
5/2	640
6/1	737

Full Input Data And Results

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 13: 'AM Opening Year + 15 Years With Development Flows' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	275	578	853
	B	318	0	228	546
	C	622	256	0	878
	Tot.	940	531	806	2277

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: AM Opening Year + 15 Years With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	318
1/2 (with short)	546(In) 228(Out)
2/1 (short)	256
2/2 (with short)	878(In) 622(Out)
3/1	578
3/2	275
4/1	531
5/1	318
5/2	622
6/1	806

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 14: 'PM Opening Year + 15 Years With Development Flows' (FG14: 'PM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	201	418	619
	B	327	0	319	646
	C	640	275	0	915
	Tot.	967	476	737	2180

Traffic Lane Flows

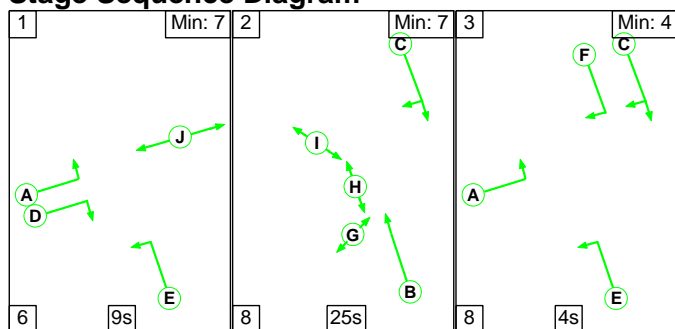
Lane	Scenario 14: PM Opening Year + 15 Years With Development Flows
Junction: Circular Road/Kells Road	
1/1 (short)	327
1/2 (with short)	646(In) 319(Out)
2/1 (short)	275
2/2 (with short)	915(In) 640(Out)
3/1	418
3/2	201
4/1	476
5/1	327
5/2	640
6/1	737

Lane Saturation Flows

Junction: Circular Road/Kells Road								
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 (Circular Road Lane 1)	This lane uses a directly entered Saturation Flow						1831	1831
1/2 (Circular Road)	3.50	0.00	Y	Arm 6 Right	23.50	100.0 %	1847	1847
2/1 (Kells Road Northbound)	3.60	0.00	Y	Arm 4 Left	Inf	100.0 %	1975	1975
2/2 (Kells Road Northbound)	3.60	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1975	1975
3/1 (Kells Road Southbound)	3.30	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1945	1945
3/2 (Kells Road Southbound)	3.30	0.00	Y	Arm 4 Right	17.00	100.0 %	1787	1787
4/1 (Circular Road Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Kells Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Kells Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Kells Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf

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

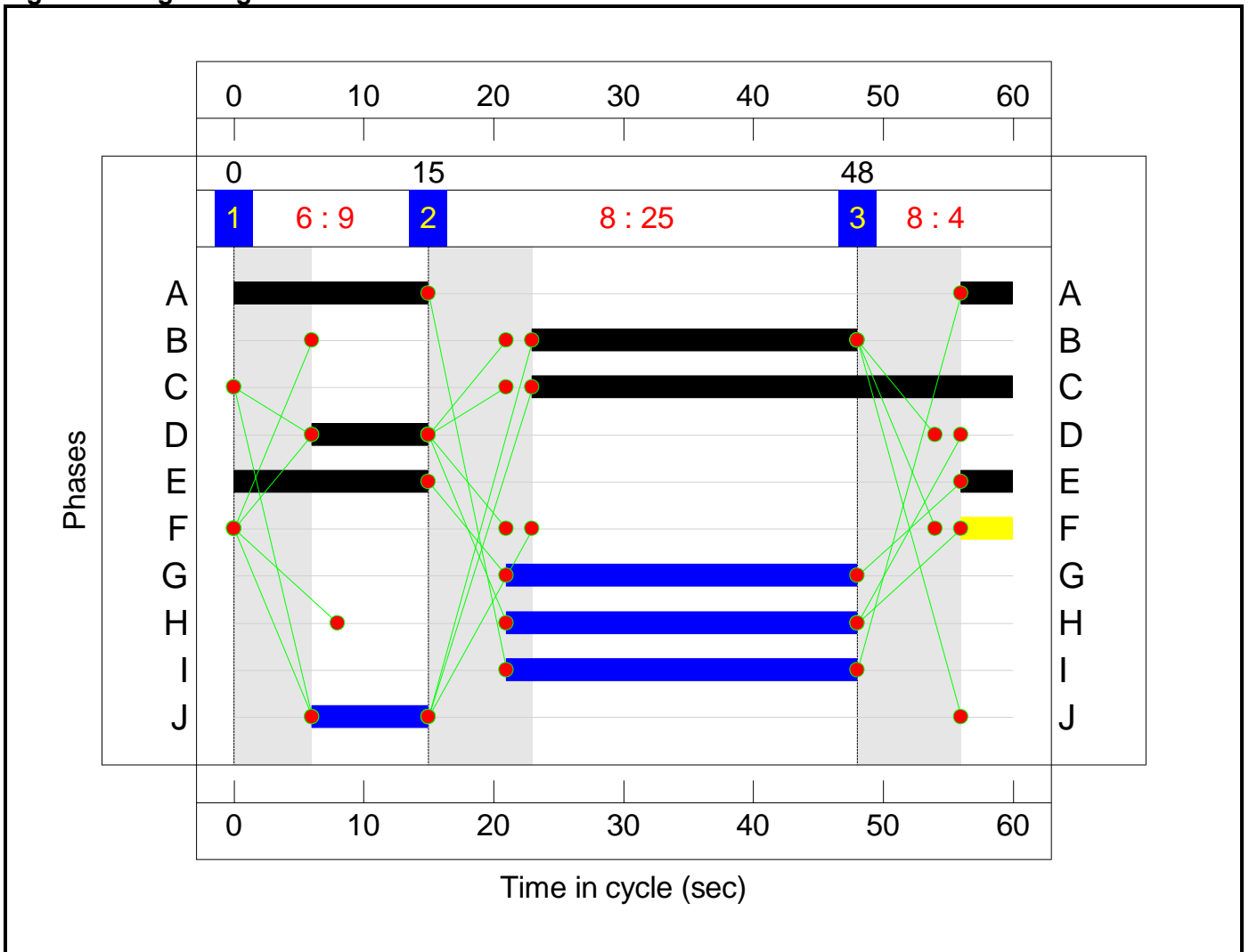
Stage Sequence Diagram




Stage Timings

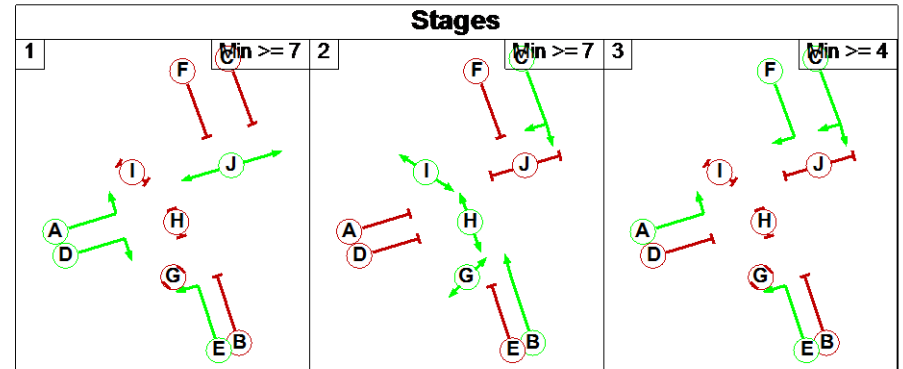
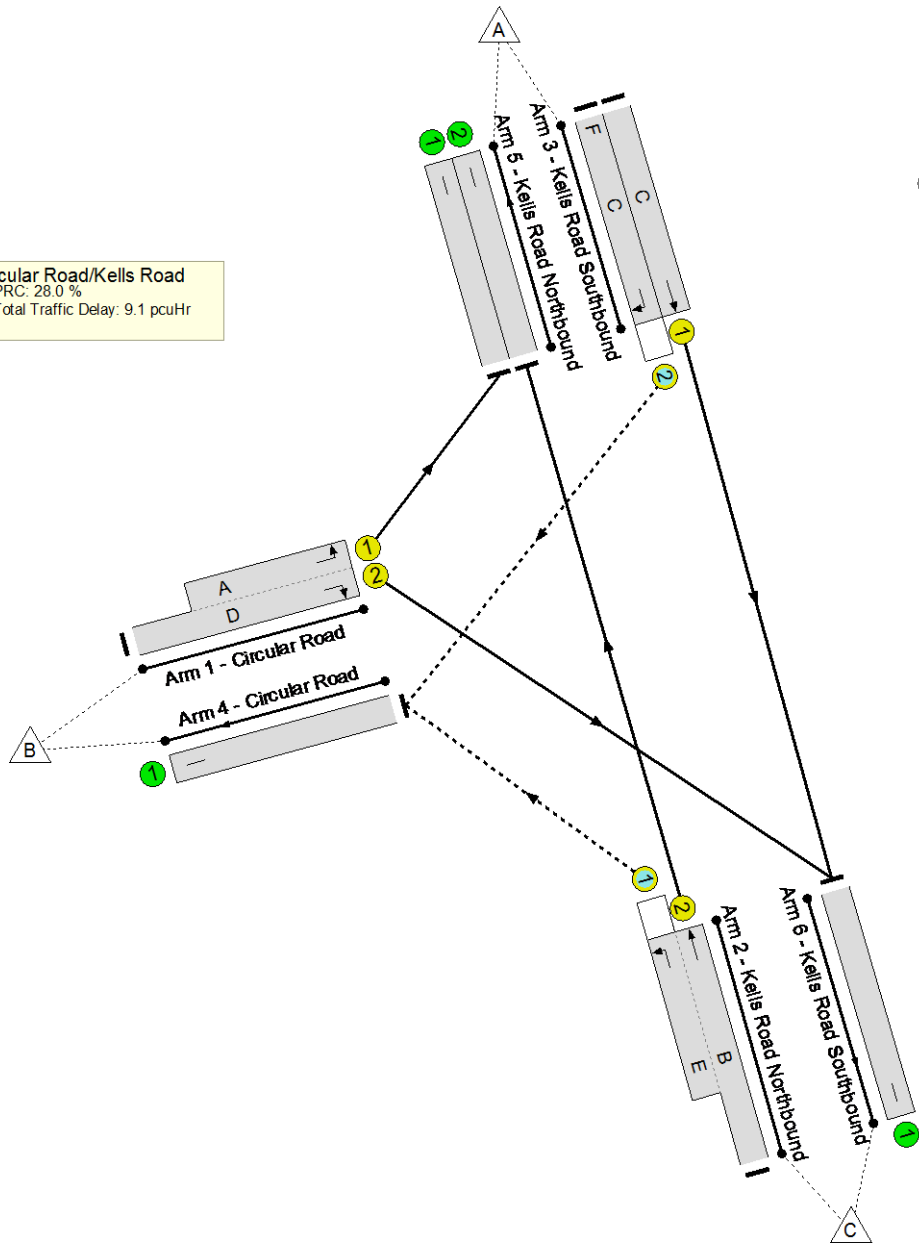
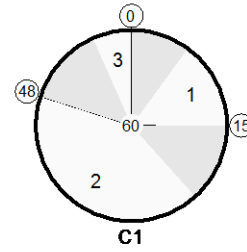
Stage	1	2	3
Duration	9	25	4
Change Point	0	15	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 28.0 %
 Total Traffic Delay: 9.1 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	-	-		-	-	-	-	-	-	70.3%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	70.3%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	9:19	-	395	1847:1831	617	64.0%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	25:19	-	758	1975:1975	1078	70.3%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	37	-	497	1945	1232	40.3%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	37	4	186	1787	603	30.9%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	198	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	694	Inf	Inf	0.0%

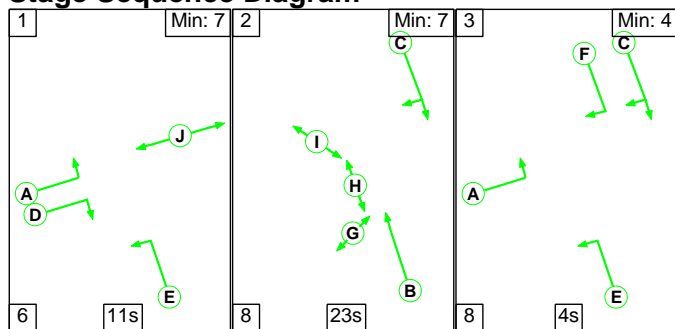
Full Input Data And Results

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	-	-	252	142	14	6.0	2.6	0.5	9.1	-	-	-	-
Circular Road/Kells Road	-	-	252	142	14	6.0	2.6	0.5	9.1	-	-	-	-
1/2+1/1	395	395	-	-	-	2.1	0.9	-	3.0	27.2	3.0	0.9	3.9
2/2+2/1	758	758	103	111	7	2.9	1.2	0.1	4.1	19.6	6.9	1.2	8.0
3/1	497	497	-	-	-	0.7	0.3	-	1.1	7.9	4.0	0.3	4.3
3/2	186	186	149	31	6	0.2	0.2	0.4	0.9	17.4	1.2	0.2	1.5
4/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	694	694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	28.0	Total Delay for Signalled Lanes (pcuHr):			9.10	Cycle Time (s):		60		
			PRC Over All Lanes (%):	28.0	Total Delay Over All Lanes(pcuHr):			9.10					

Full Input Data And Results

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

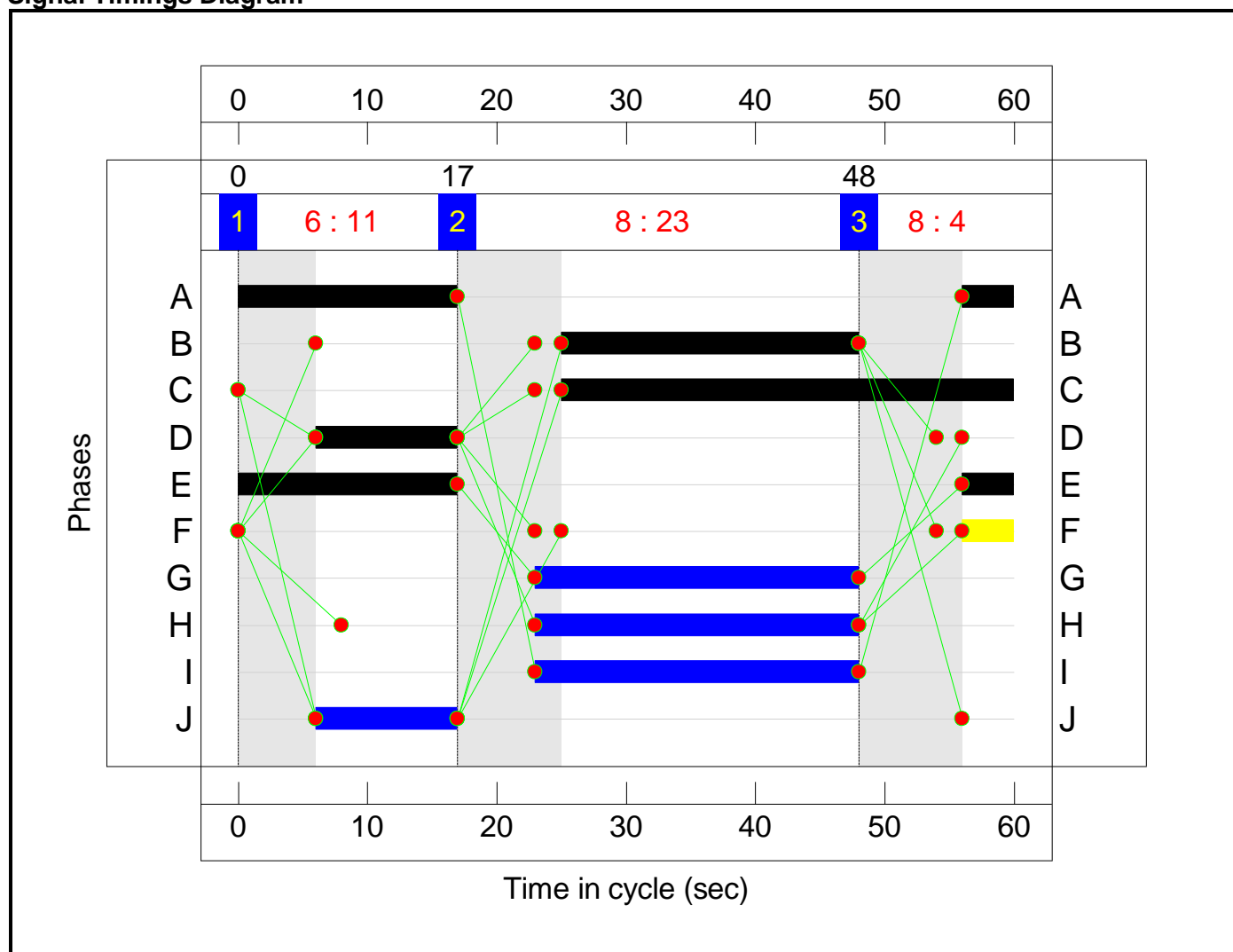
Stage Sequence Diagram




Stage Timings

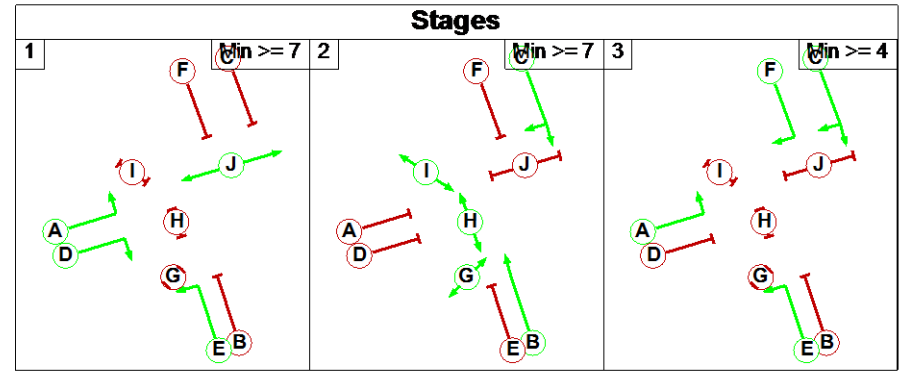
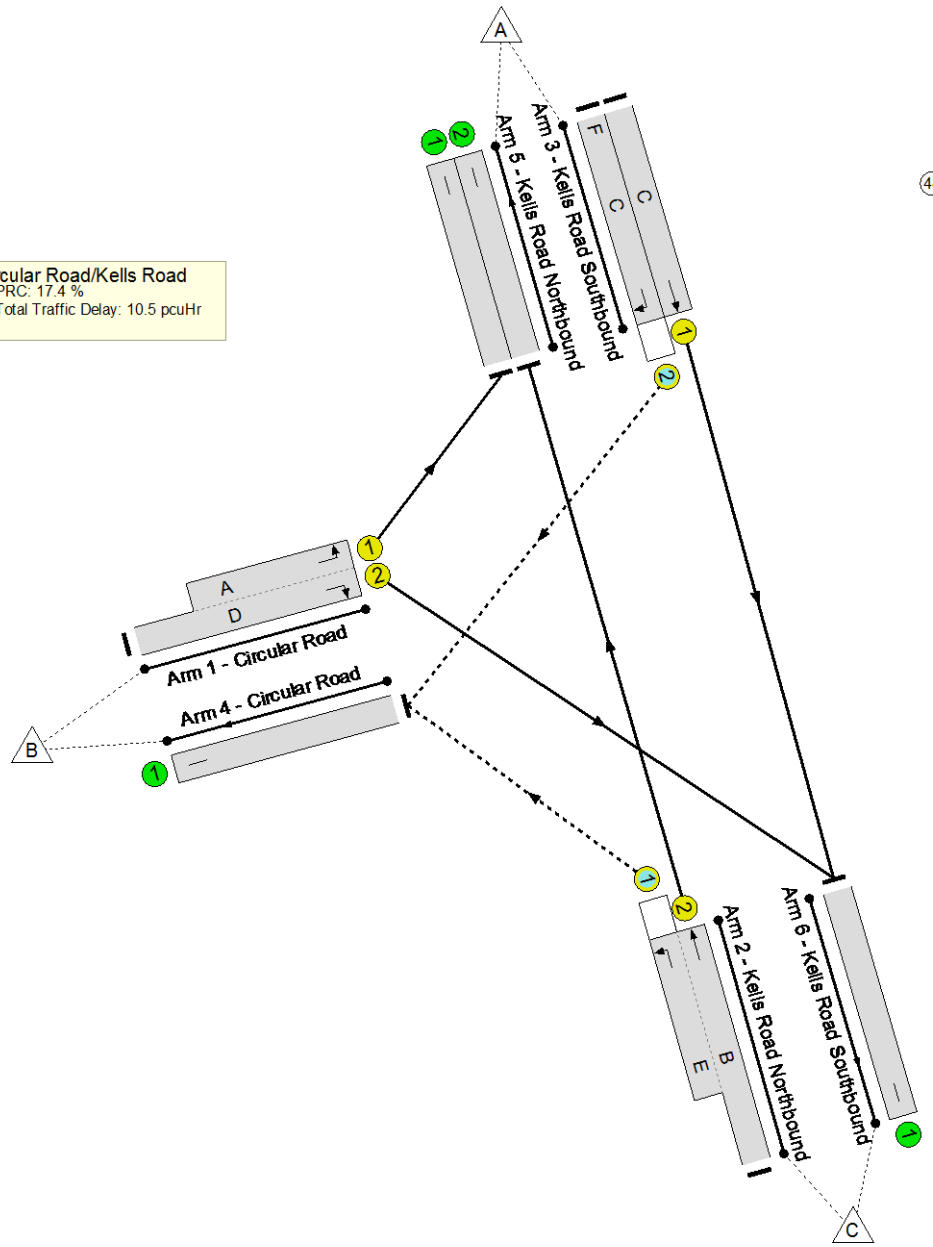
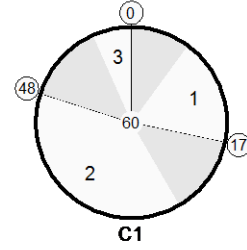
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 17.4 %
 Total Traffic Delay: 10.5 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	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	531	1847:1831	711	74.7%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	783	1975:1975	1022	76.6%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	360	1945	1167	30.8%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	134	1787	558	24.0%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	255	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	636	Inf	Inf	0.0%

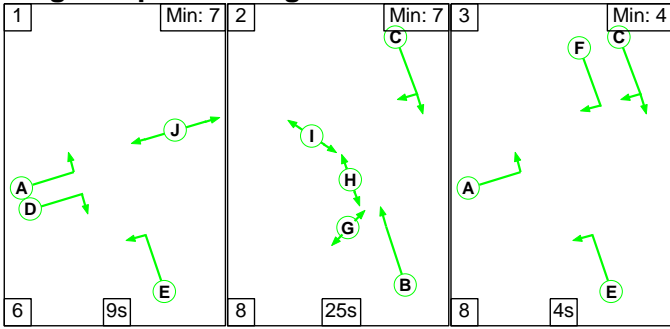
Full Input Data And Results

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	-	-	215	142	12	6.7	3.5	0.4	10.5	-	-	-	-
Circular Road/Kells Road	-	-	215	142	12	6.7	3.5	0.4	10.5	-	-	-	-
1/2+1/1	531	531	-	-	-	2.7	1.5	-	4.2	28.3	4.3	1.5	5.7
2/2+2/1	783	783	108	119	8	3.2	1.6	0.1	4.8	22.3	7.5	1.6	9.1
3/1	360	360	-	-	-	0.6	0.2	-	0.8	8.1	2.9	0.2	3.1
3/2	134	134	107	22	4	0.2	0.2	0.3	0.7	18.6	0.9	0.2	1.1
4/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	636	636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		17.4	Total Delay for Signalled Lanes (pcuHr):		10.52	Cycle Time (s):		60		
			PRC Over All Lanes (%):		17.4	Total Delay Over All Lanes(pcuHr):		10.52					

Full Input Data And Results

Scenario 3: 'AM Opening Year Without Development Flows' (FG3: 'AM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

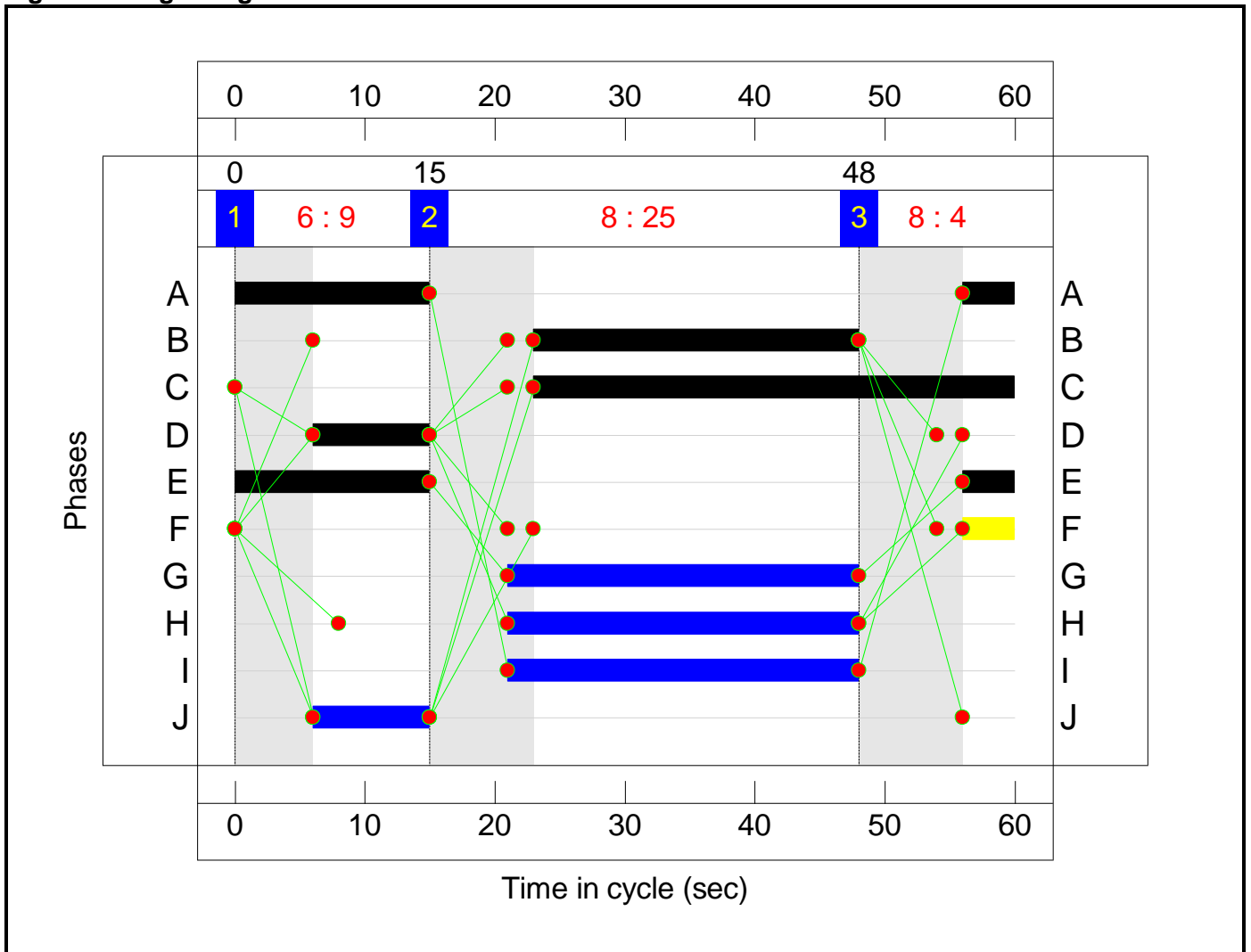
Stage Sequence Diagram




Stage Timings

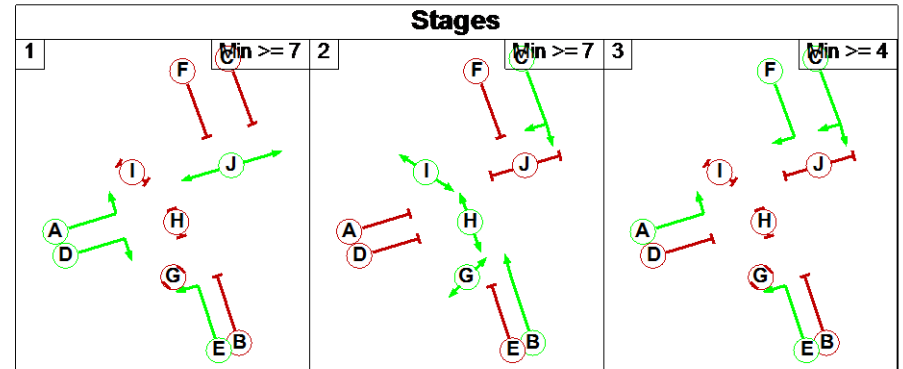
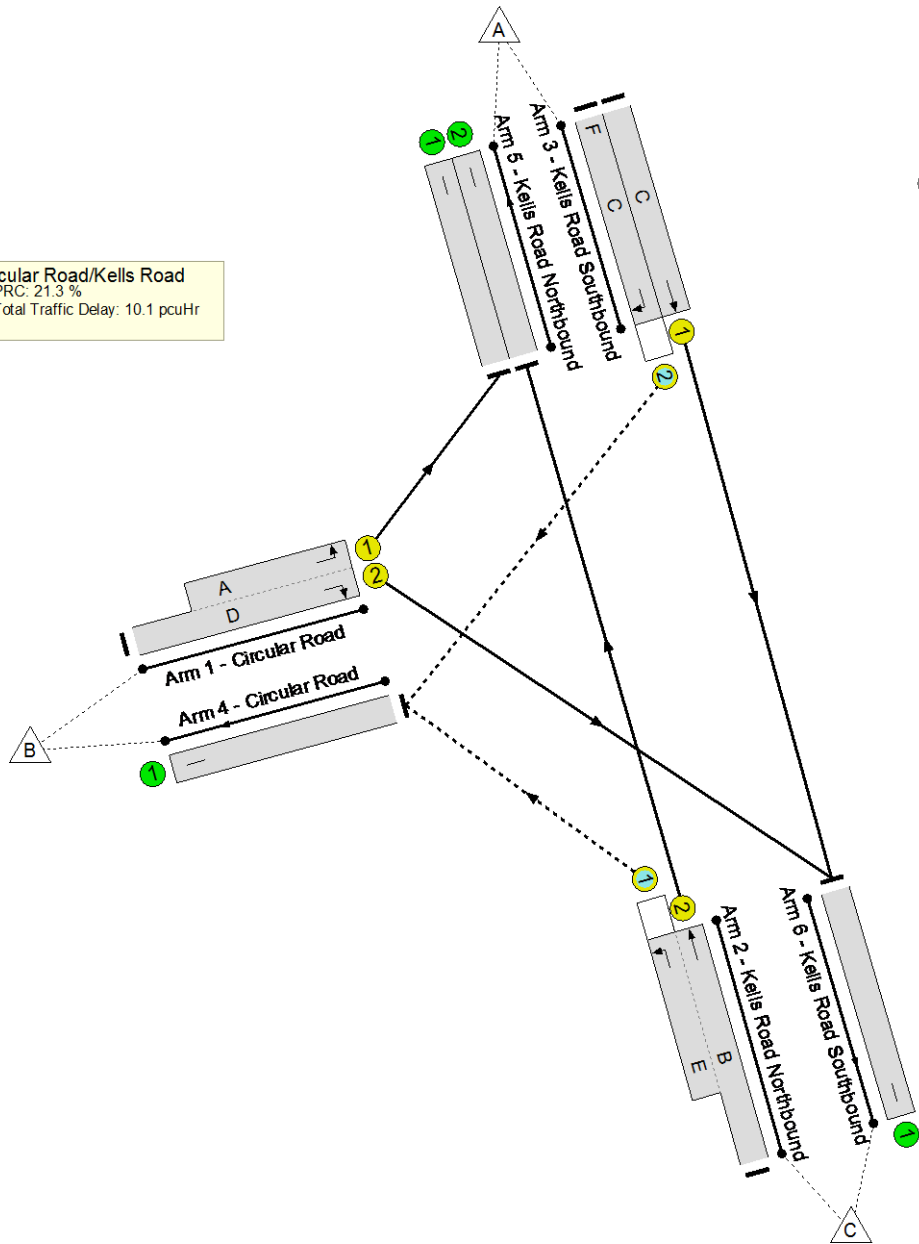
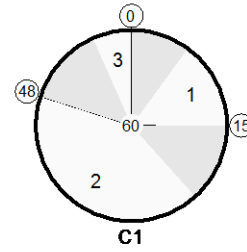
Stage	1	2	3
Duration	9	25	4
Change Point	0	15	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 21,3 %
 Total Traffic Delay: 10.1 pcuHr



Full Input Data And Results

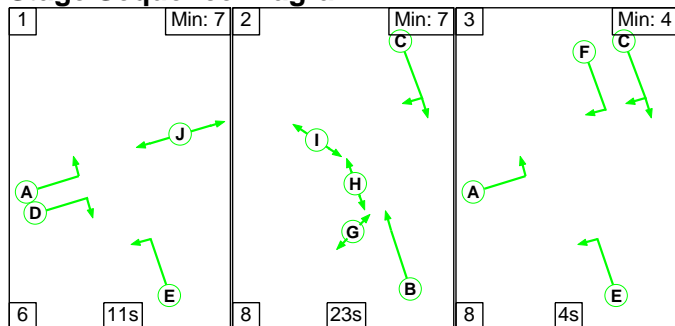
Network Results

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	-	-		-	-	-	-	-	-	74.2%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	9:19	-	416	1847:1831	616	67.6%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	25:19	-	800	1975:1975	1078	74.2%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	37	-	527	1945	1232	42.8%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	37	4	195	1787	582	33.5%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	428	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	208	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%

Full Input Data And Results

Scenario 4: 'PM Opening Year Without Development Flows' (FG4: 'PM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

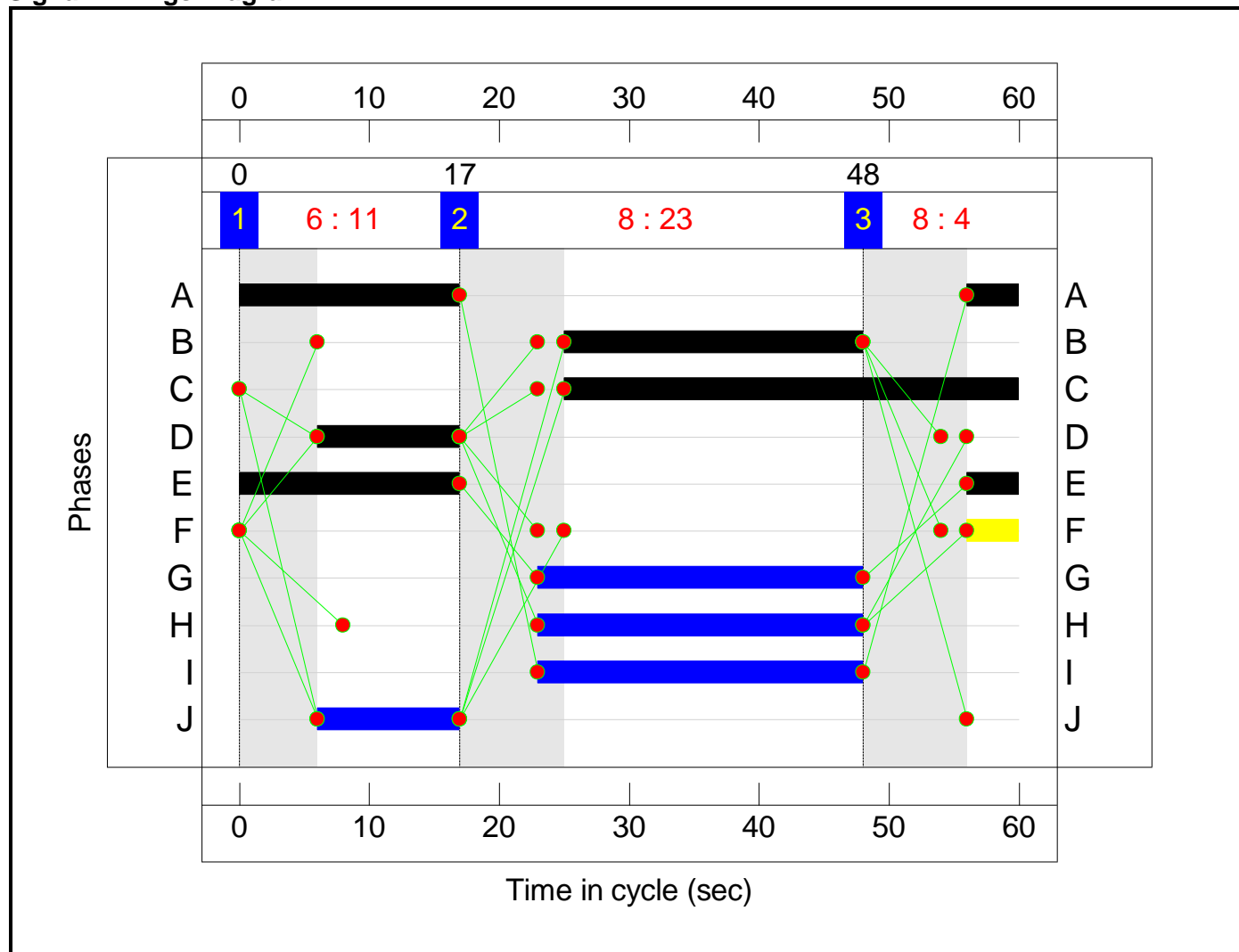
Stage Sequence Diagram




Stage Timings

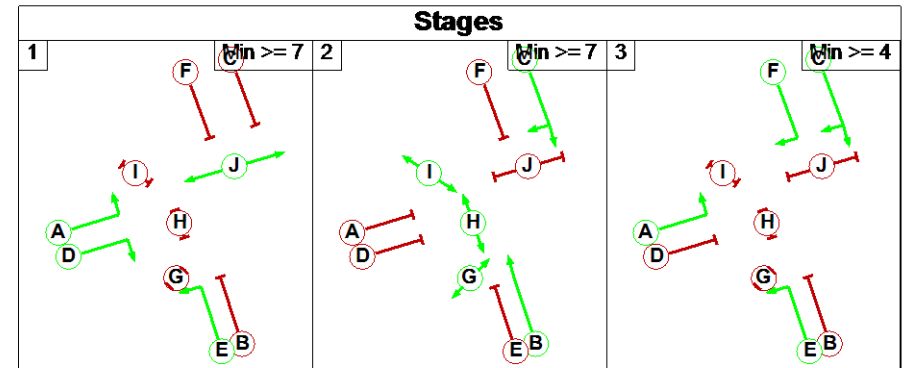
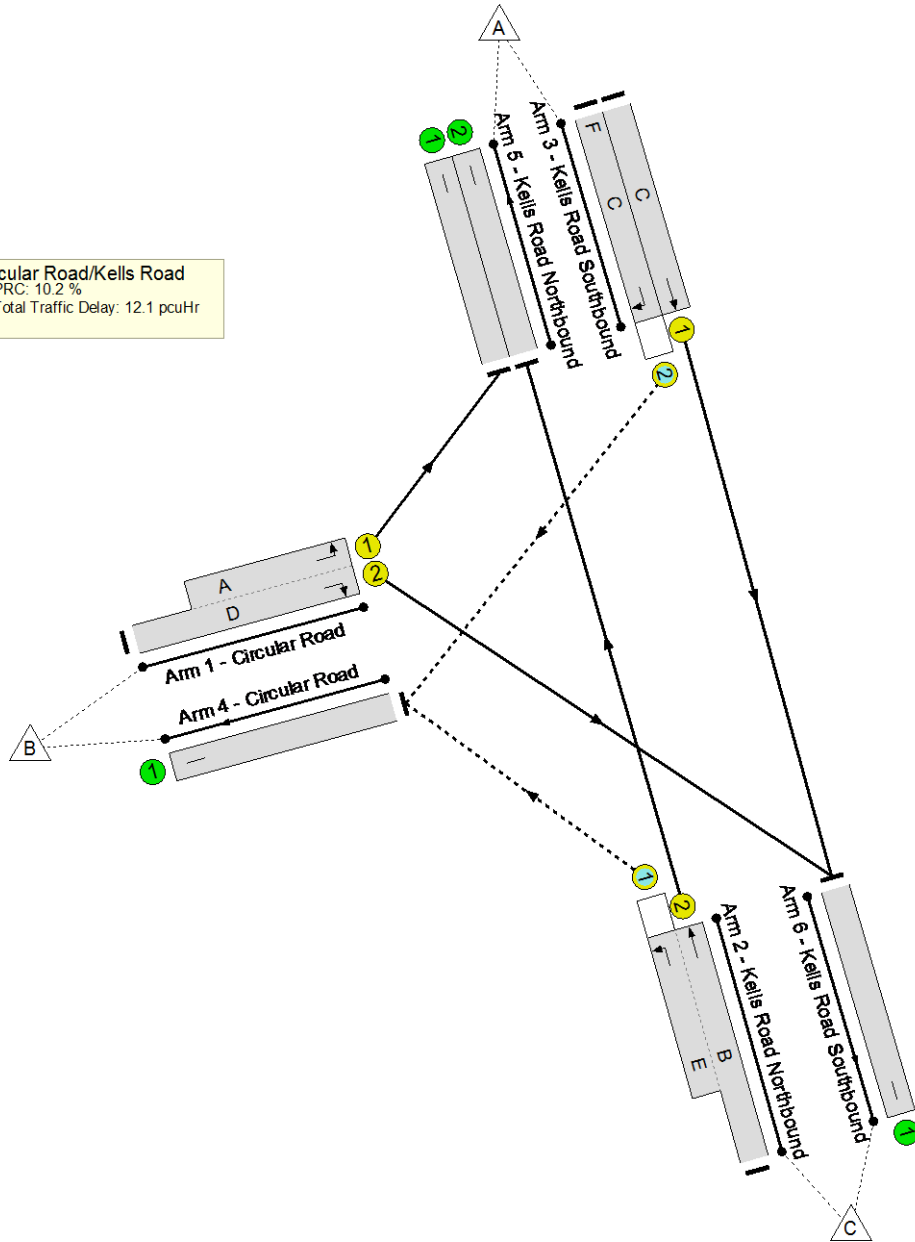
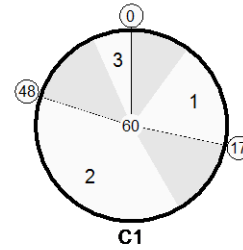
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 10.2 %
 Total Traffic Delay: 12.1 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	-	-		-	-	-	-	-	-	81.7%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	559	1847:1831	710	78.8%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	835	1975:1975	1022	81.7%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	381	1945	1167	32.6%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	141	1787	535	26.3%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%

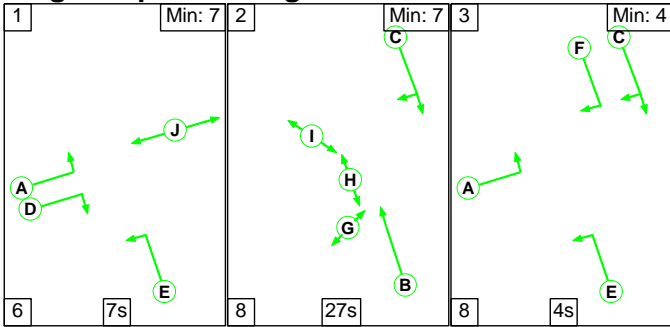
Full Input Data And Results

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	-	-	220	159	13	7.2	4.4	0.5	12.1	-	-	-	-
Circular Road/Kells Road	-	-	220	159	13	7.2	4.4	0.5	12.1	-	-	-	-
1/2+1/1	559	559	-	-	-	2.9	1.8	-	4.7	30.3	4.5	1.8	6.3
2/2+2/1	835	835	107	136	8	3.5	2.2	0.1	5.7	24.5	8.3	2.2	10.5
3/1	381	381	-	-	-	0.6	0.2	-	0.9	8.3	3.1	0.2	3.3
3/2	141	141	113	24	5	0.2	0.2	0.4	0.8	20.1	1.0	0.2	1.2
4/1	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	10.2	Total Delay for Signalled Lanes (pcuHr):			12.06	Cycle Time (s): 60				
			PRC Over All Lanes (%):	10.2	Total Delay Over All Lanes (pcuHr):			12.06					

Full Input Data And Results

Scenario 5: 'AM Opening Year With Development Flows' (FG5: 'AM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

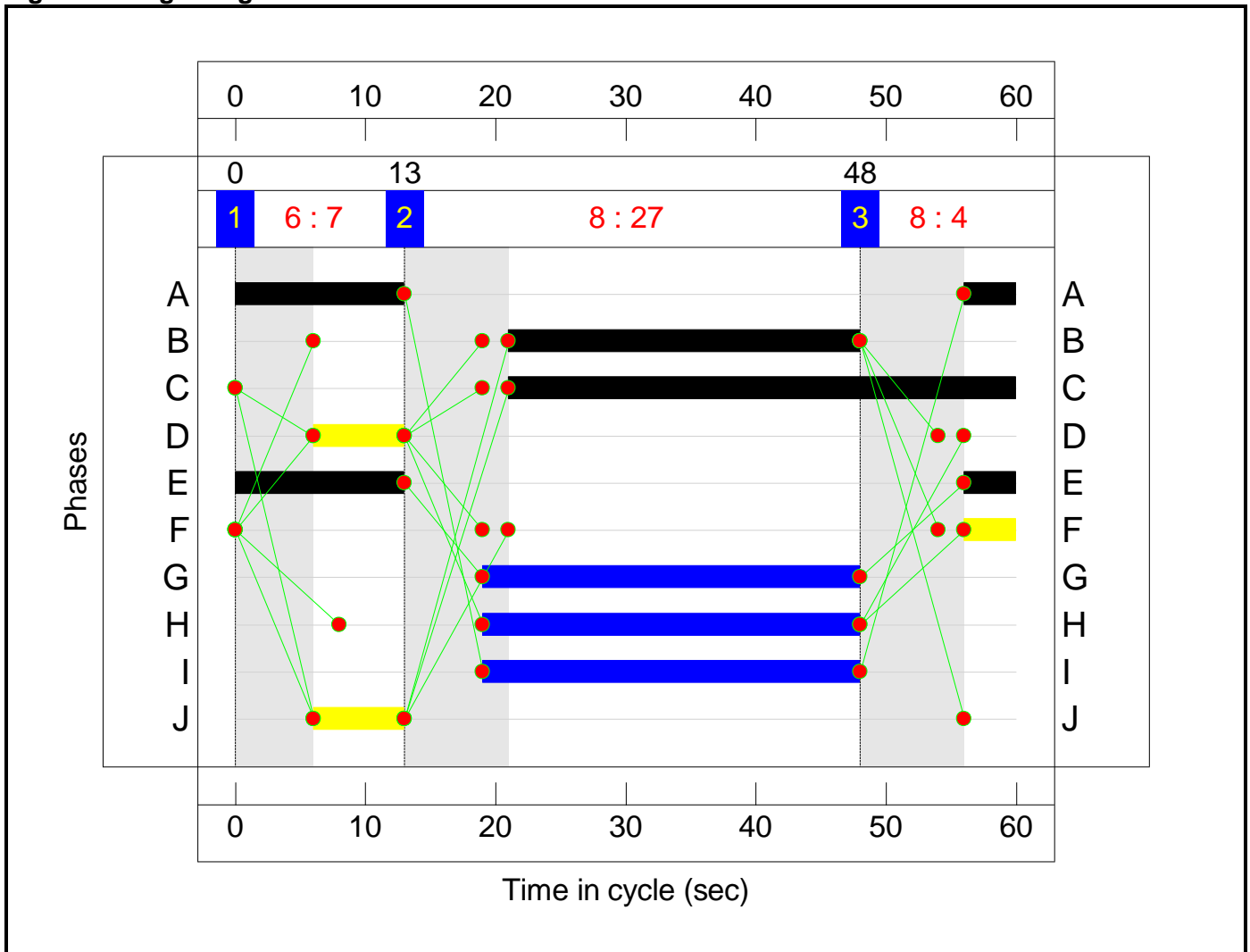
Stage Sequence Diagram




Stage Timings

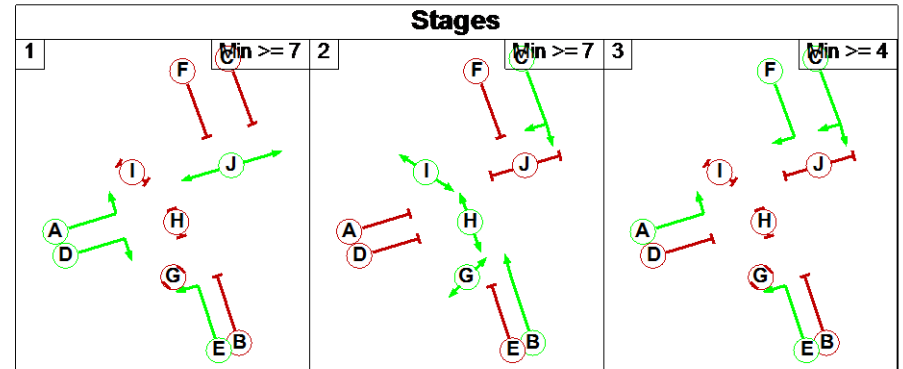
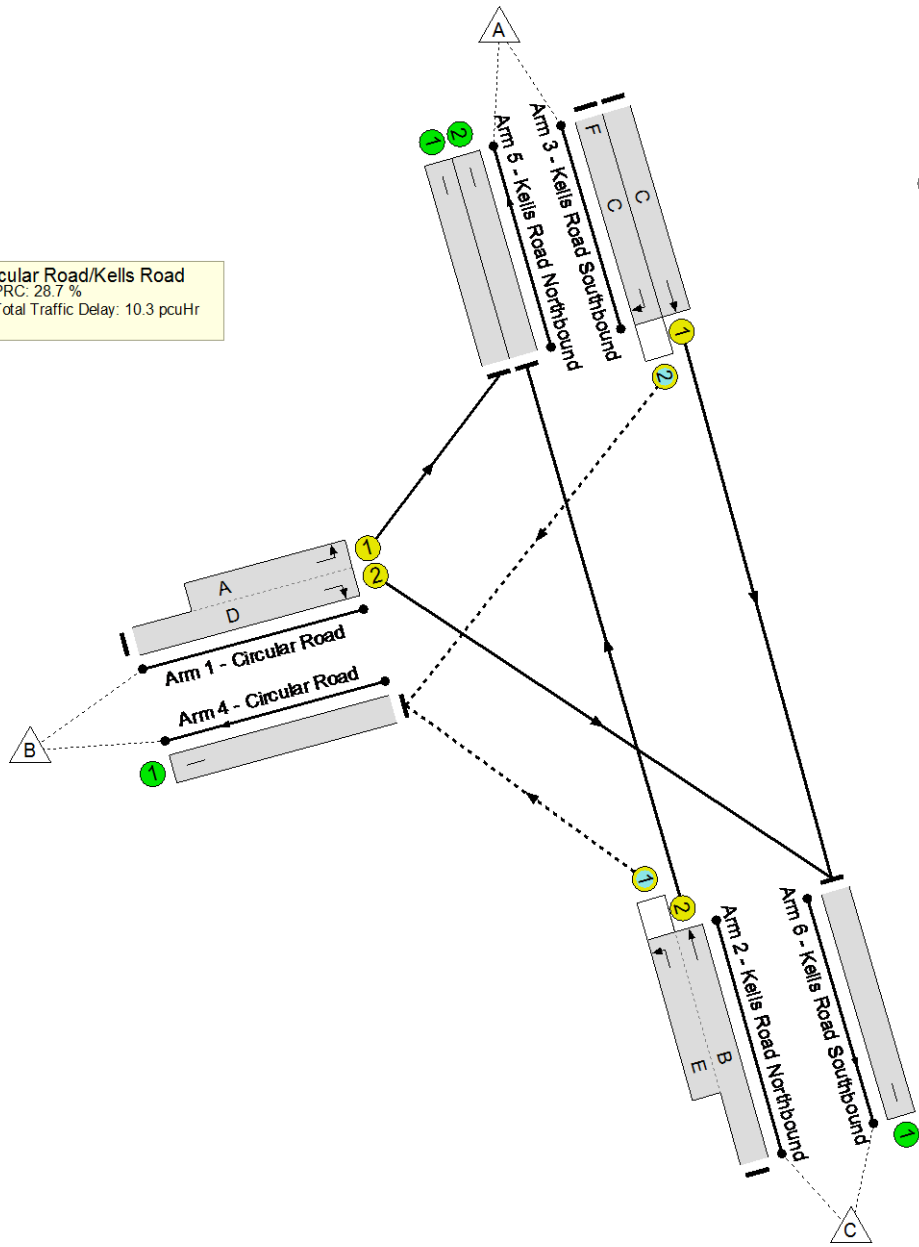
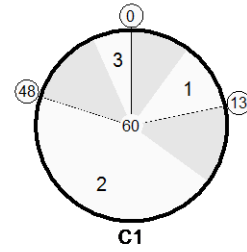
Stage	1	2	3
Duration	7	27	4
Change Point	0	13	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 28.7 %
 Total Traffic Delay: 10.3 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	-	-		-	-	-	-	-	-	69.9%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	69.9%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	7:17	-	506	1847:1831	789	64.2%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	27:17	-	800	1975:1975	1144	69.9%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	39	-	527	1945	1297	40.6%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	39	4	256	1787	623	41.1%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%

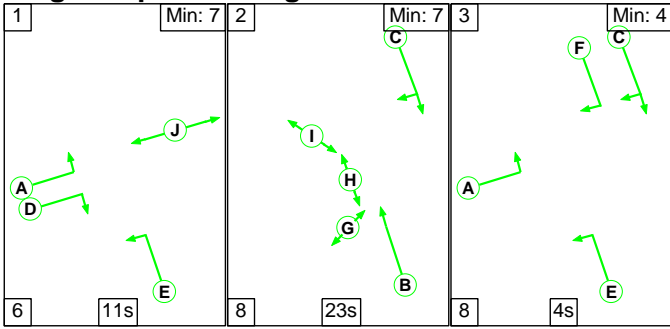
Full Input Data And Results

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	-	-	301	171	16	6.9	2.7	0.7	10.3	-	-	-	-
Circular Road/Kells Road	-	-	301	171	16	6.9	2.7	0.7	10.3	-	-	-	-
1/2+1/1	506	506	-	-	-	2.9	0.9	-	3.8	27.1	4.1	0.9	5.0
2/2+2/1	800	800	97	129	8	3.0	1.2	0.1	4.2	18.9	6.9	1.2	8.1
3/1	527	527	-	-	-	0.7	0.3	-	1.0	6.9	4.0	0.3	4.3
3/2	256	256	205	43	9	0.3	0.3	0.6	1.3	18.1	1.6	0.3	2.0
4/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	28.7	Total Delay for Signalled Lanes (pcuHr):			10.31	Cycle Time (s): 60				
			PRC Over All Lanes (%):	28.7	Total Delay Over All Lanes(pcuHr):			10.31					

Full Input Data And Results

Scenario 6: 'PM Opening Year With Development Flows' (FG6: 'PM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

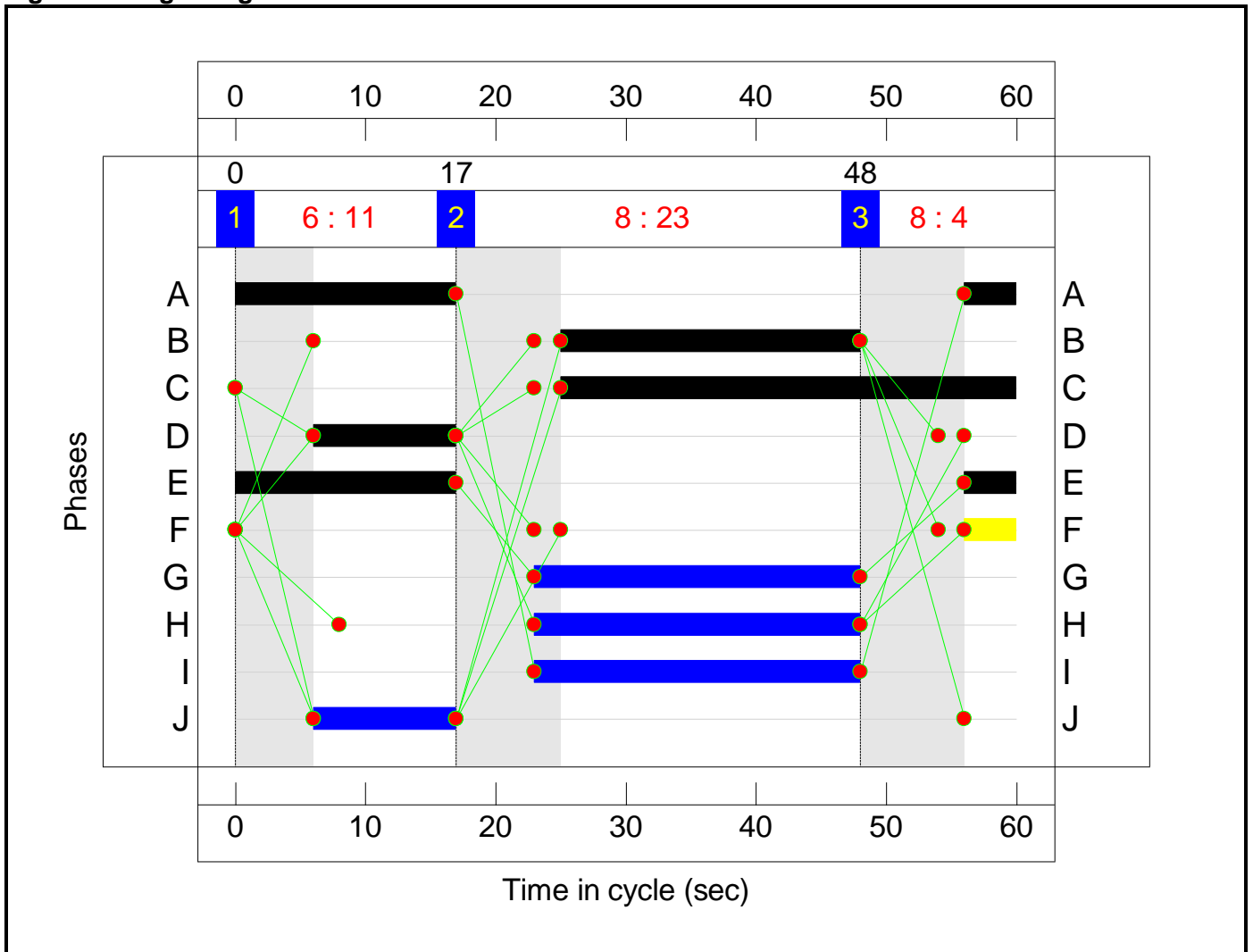
Stage Sequence Diagram




Stage Timings

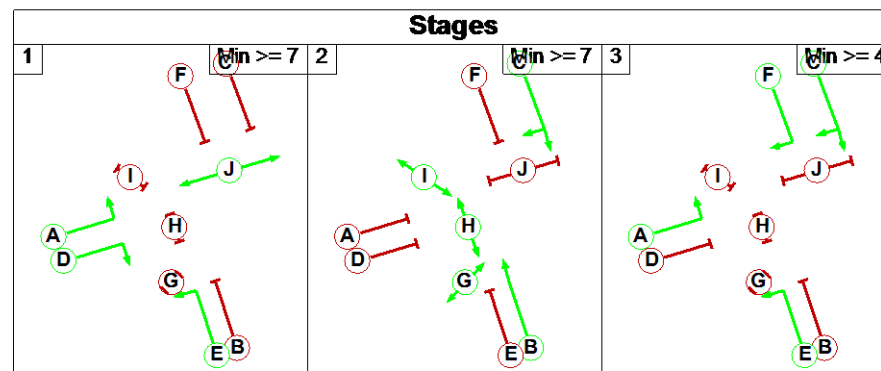
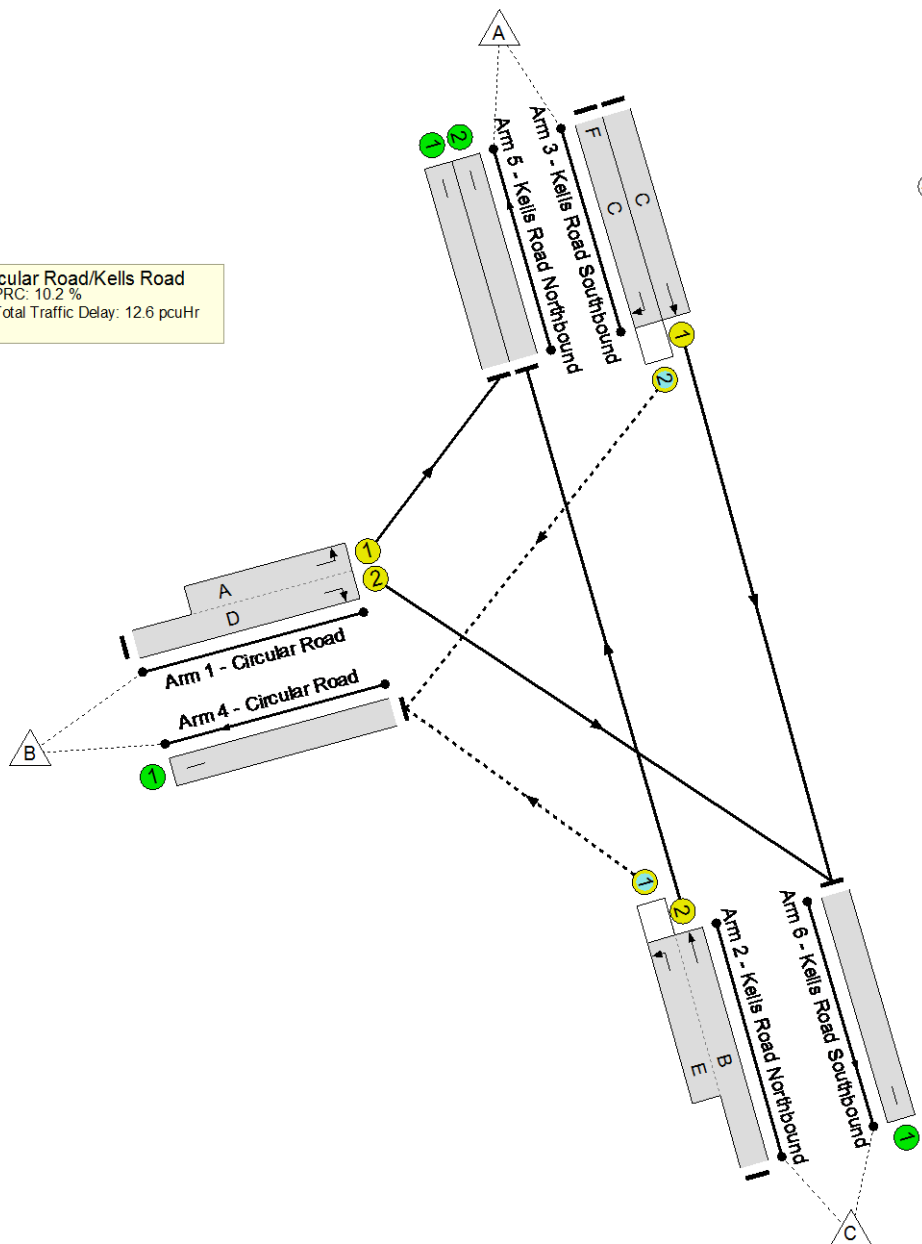
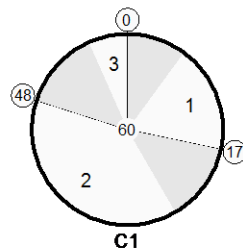
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 10.2 %
 Total Traffic Delay: 12.6 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	-	-		-	-	-	-	-	-	81.7%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	81.7%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	592	1847:1831	751	78.8%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	835	1975:1975	1022	81.7%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	381	1945	1167	32.6%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	188	1787	535	35.1%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%

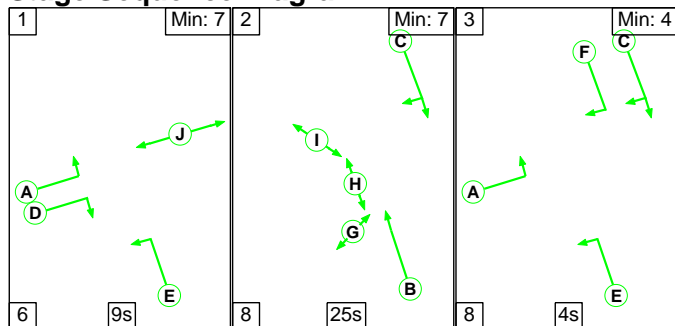
Full Input Data And Results

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	-	-	220	204	15	7.4	4.5	0.6	12.6	-	-	-	-
Circular Road/Kells Road	-	-	220	204	15	7.4	4.5	0.6	12.6	-	-	-	-
1/2+1/1	592	592	-	-	-	3.0	1.8	-	4.9	29.6	4.5	1.8	6.3
2/2+2/1	835	835	103	140	8	3.5	2.2	0.1	5.7	24.6	8.3	2.2	10.5
3/1	381	381	-	-	-	0.6	0.2	-	0.9	8.3	3.1	0.2	3.3
3/2	188	188	117	64	6	0.3	0.3	0.6	1.1	21.7	1.4	0.3	1.6
4/1	439	439	-	-	-	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
5/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 10.2 Total Delay for Signalled Lanes (pcuHr): 12.57 Cycle Time (s): 60 PRC Over All Lanes (%): 10.2 Total Delay Over All Lanes(pcuHr): 12.57</p>													

Full Input Data And Results

Scenario 7: 'AM Opening Year + 5 Years Without Development Flows' (FG7: 'AM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

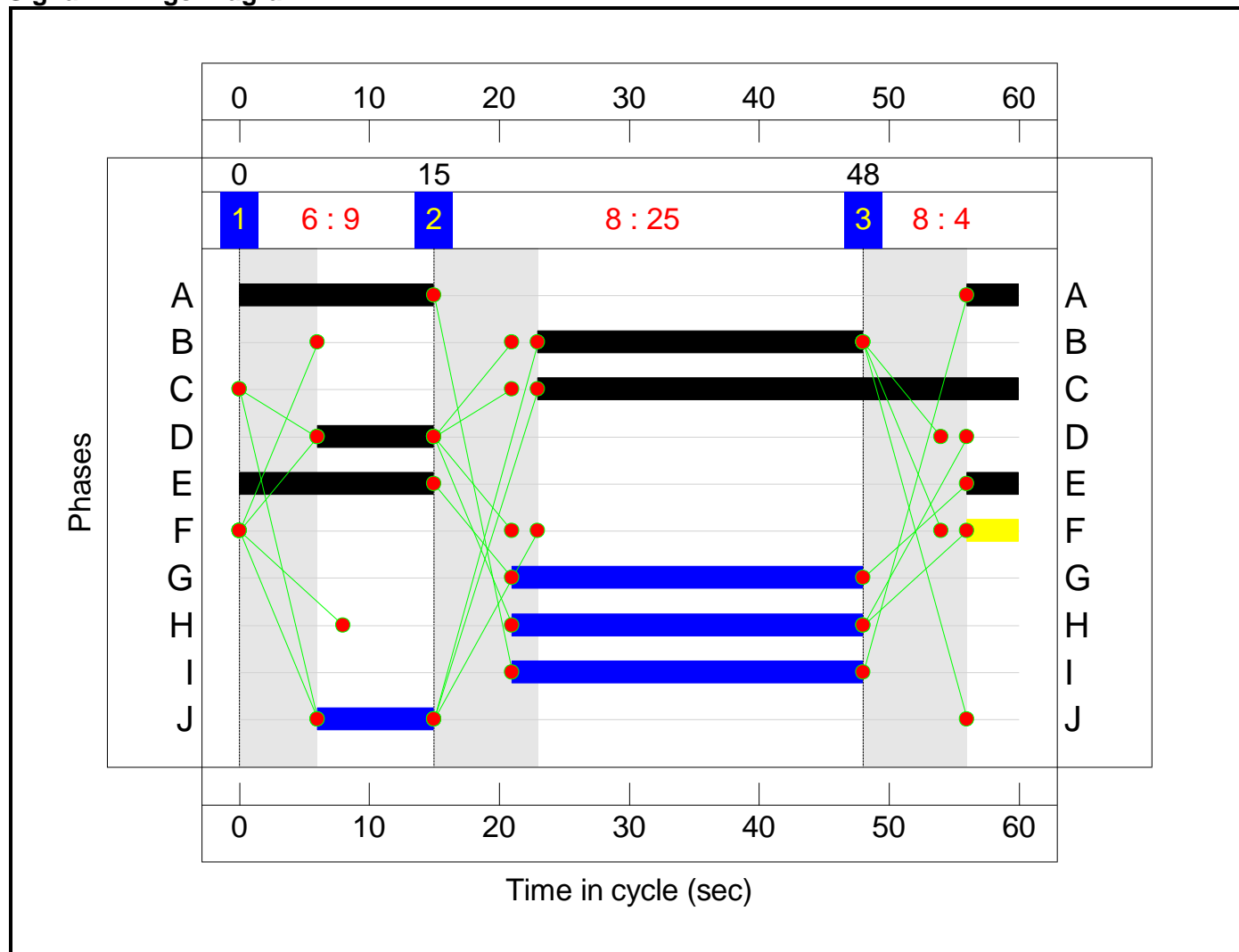
Stage Sequence Diagram




Stage Timings

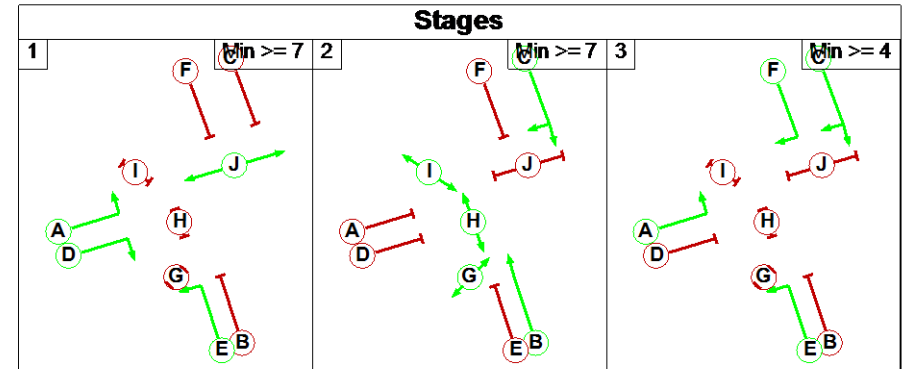
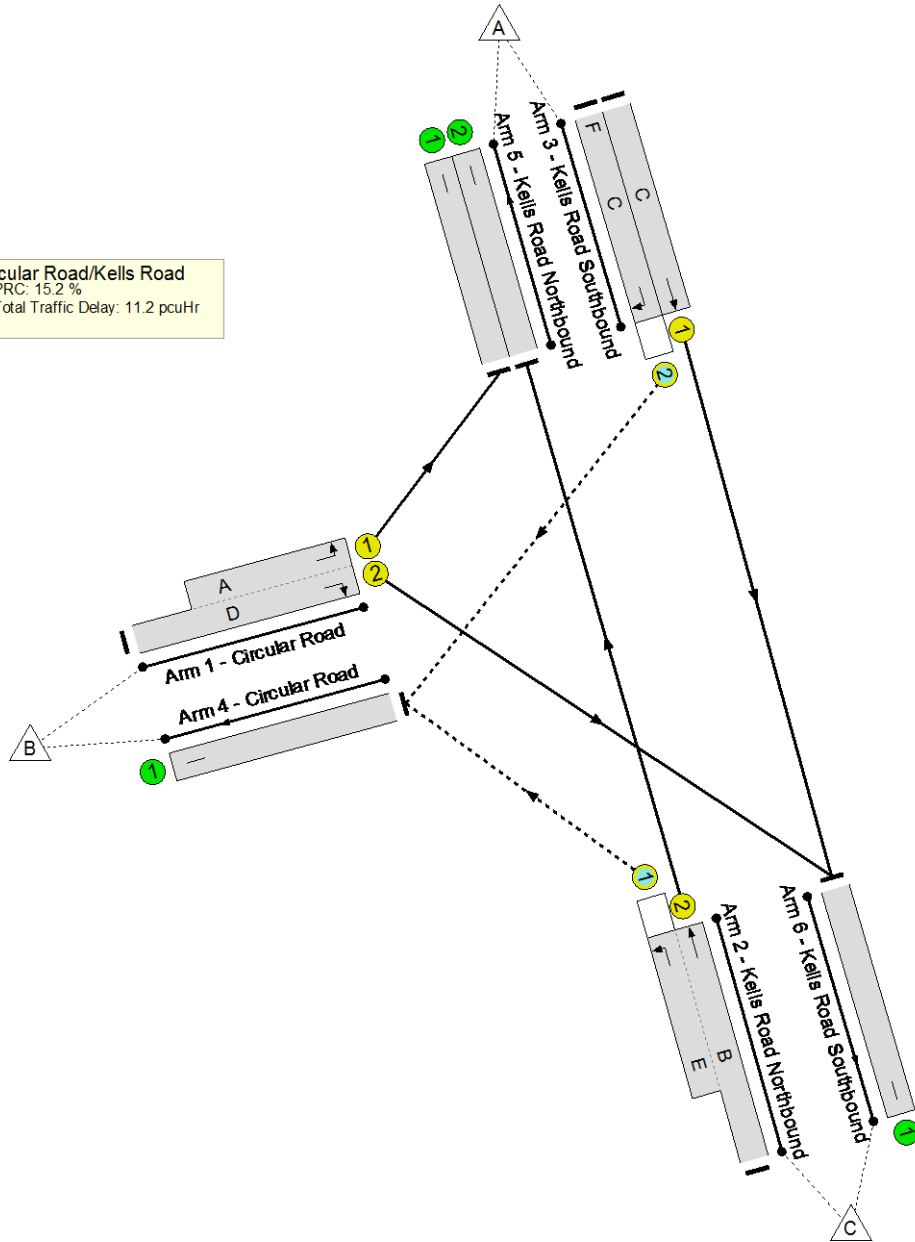
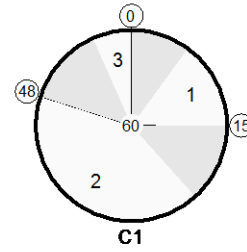
Stage	1	2	3
Duration	9	25	4
Change Point	0	15	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 15.2 %
 Total Traffic Delay: 11.2 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	-	-	N/A	-	-		-	-	-	-	-	-	78.2%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	78.2%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	9:19	-	438	1847:1831	616	71.1%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	25:19	-	843	1975:1975	1079	78.2%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	37	-	555	1945	1232	45.1%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	37	4	206	1787	562	36.6%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	452	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	219	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%

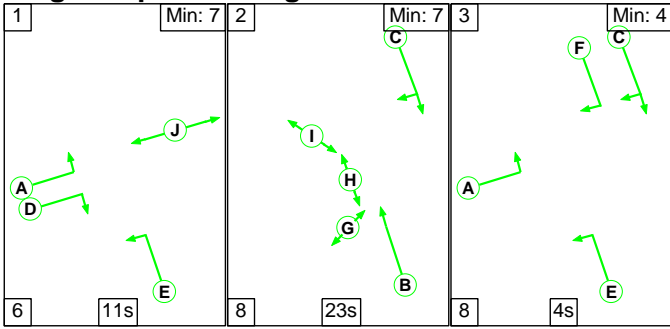
Full Input Data And Results

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	-	-	246	191	15	6.8	3.7	0.7	11.2	-	-	-	-
Circular Road/Kells Road	-	-	246	191	15	6.8	3.7	0.7	11.2	-	-	-	-
1/2+1/1	438	438	-	-	-	2.4	1.2	-	3.6	29.4	3.4	1.2	4.6
2/2+2/1	843	843	101	137	8	3.3	1.8	0.1	5.2	22.1	8.0	1.8	9.7
3/1	555	555	-	-	-	0.9	0.4	-	1.3	8.3	4.6	0.4	5.0
3/2	206	206	145	55	7	0.3	0.3	0.6	1.2	20.4	1.4	0.3	1.7
4/1	452	452	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	219	219	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	15.2	Total Delay for Signalled Lanes (pcuHr):			11.20	Cycle Time (s): 60				
			PRC Over All Lanes (%):	15.2	Total Delay Over All Lanes(pcuHr):			11.20					

Full Input Data And Results

Scenario 8: 'PM Opening Year + 5 Years Without Development Flows' (FG8: 'PM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

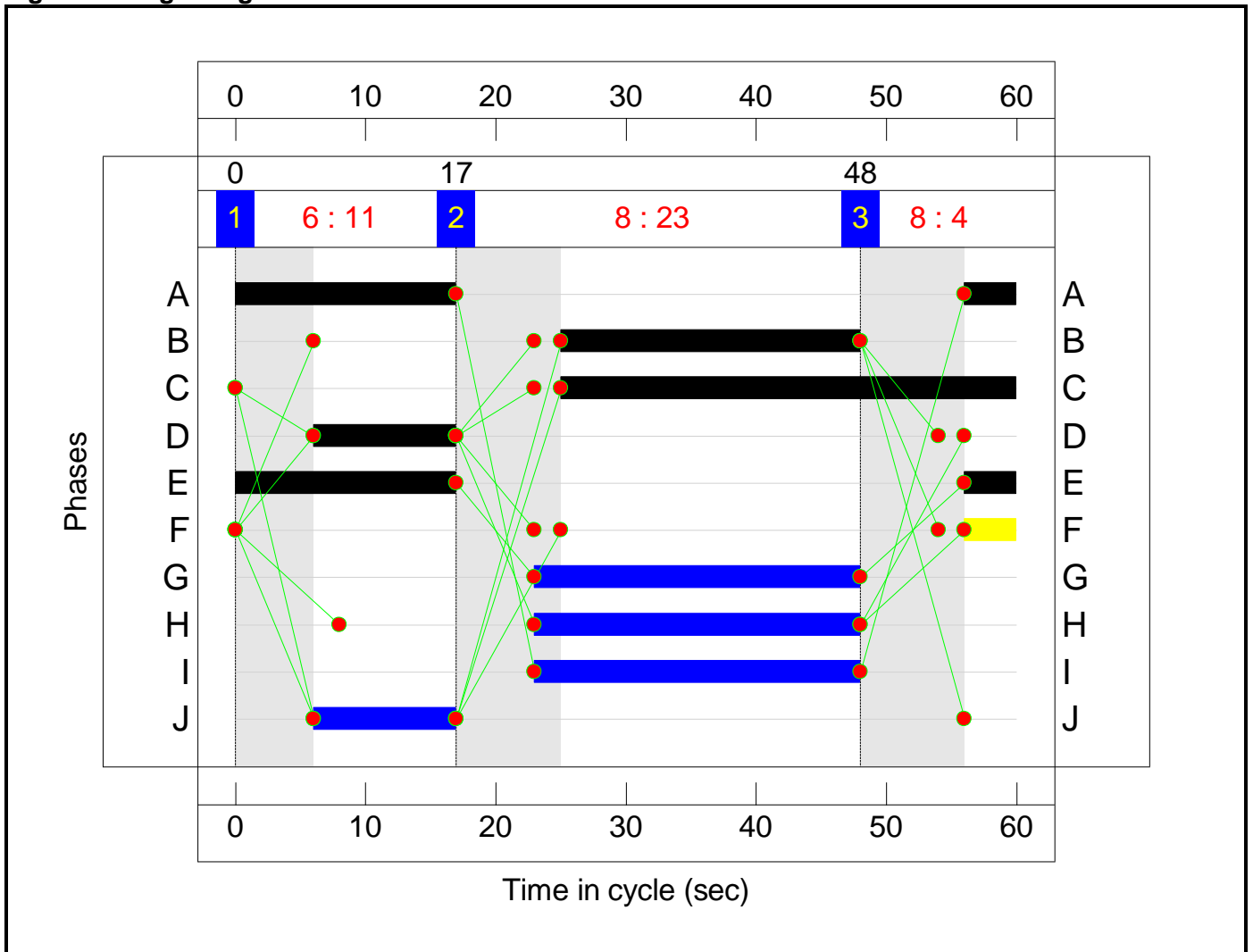
Stage Sequence Diagram




Stage Timings

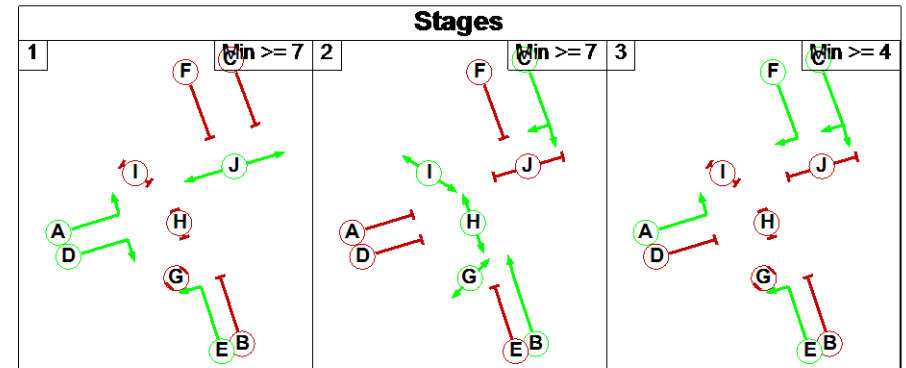
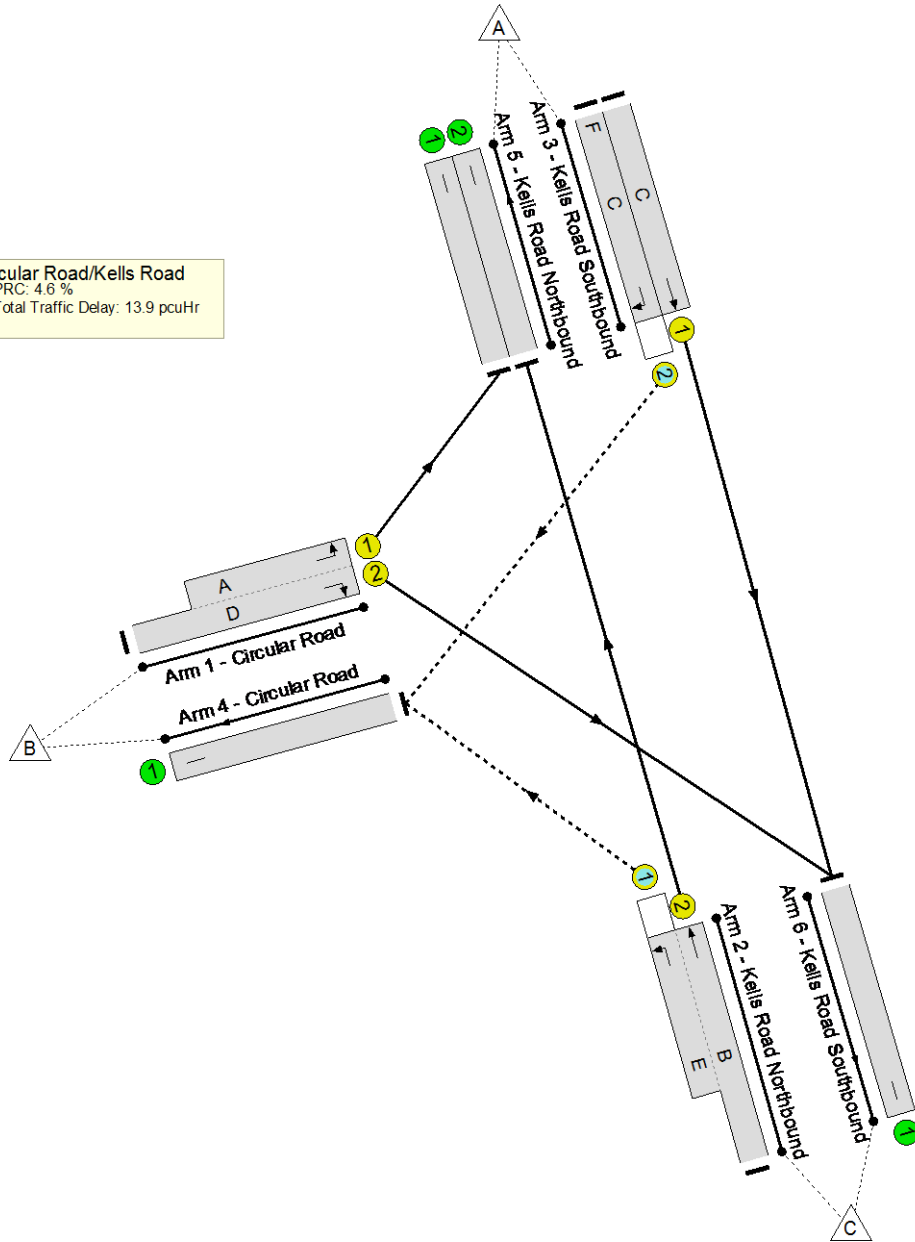
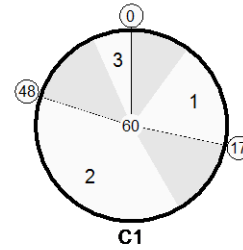
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 4.6 %
 Total Traffic Delay: 13.9 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	-	-		-	-	-	-	-	-	86.0%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	86.0%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	588	1847:1831	710	82.8%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	879	1975:1975	1022	86.0%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	401	1945	1167	34.4%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	148	1787	513	28.8%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	282	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%

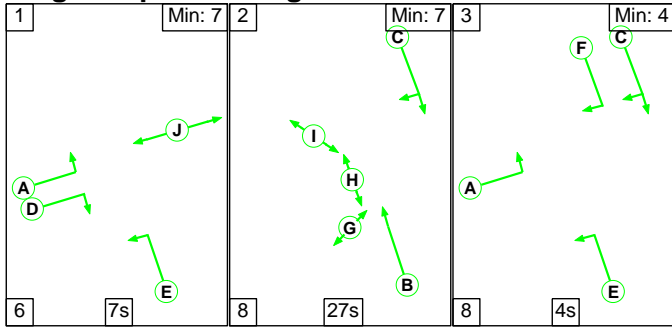
Full Input Data And Results

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	-	-	202	196	14	7.7	5.7	0.5	13.9	-	-	-	-
Circular Road/Kells Road	-	-	202	196	14	7.7	5.7	0.5	13.9	-	-	-	-
1/2+1/1	588	588	-	-	-	3.1	2.3	-	5.4	33.0	4.8	2.3	7.2
2/2+2/1	879	879	106	149	9	3.7	3.0	0.1	6.7	27.5	9.2	3.0	12.1
3/1	401	401	-	-	-	0.7	0.3	-	0.9	8.4	3.3	0.3	3.6
3/2	148	148	96	47	5	0.2	0.2	0.5	0.9	21.8	1.1	0.2	1.3
4/1	412	412	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	282	282	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 4.6 Total Delay for Signalled Lanes (pcuHr): 13.95 Cycle Time (s): 60 PRC Over All Lanes (%): 4.6 Total Delay Over All Lanes(pcuHr): 13.95</p>													

Full Input Data And Results

Scenario 9: 'AM Opening Year + 5 Years With Development Flows' (FG9: 'AM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

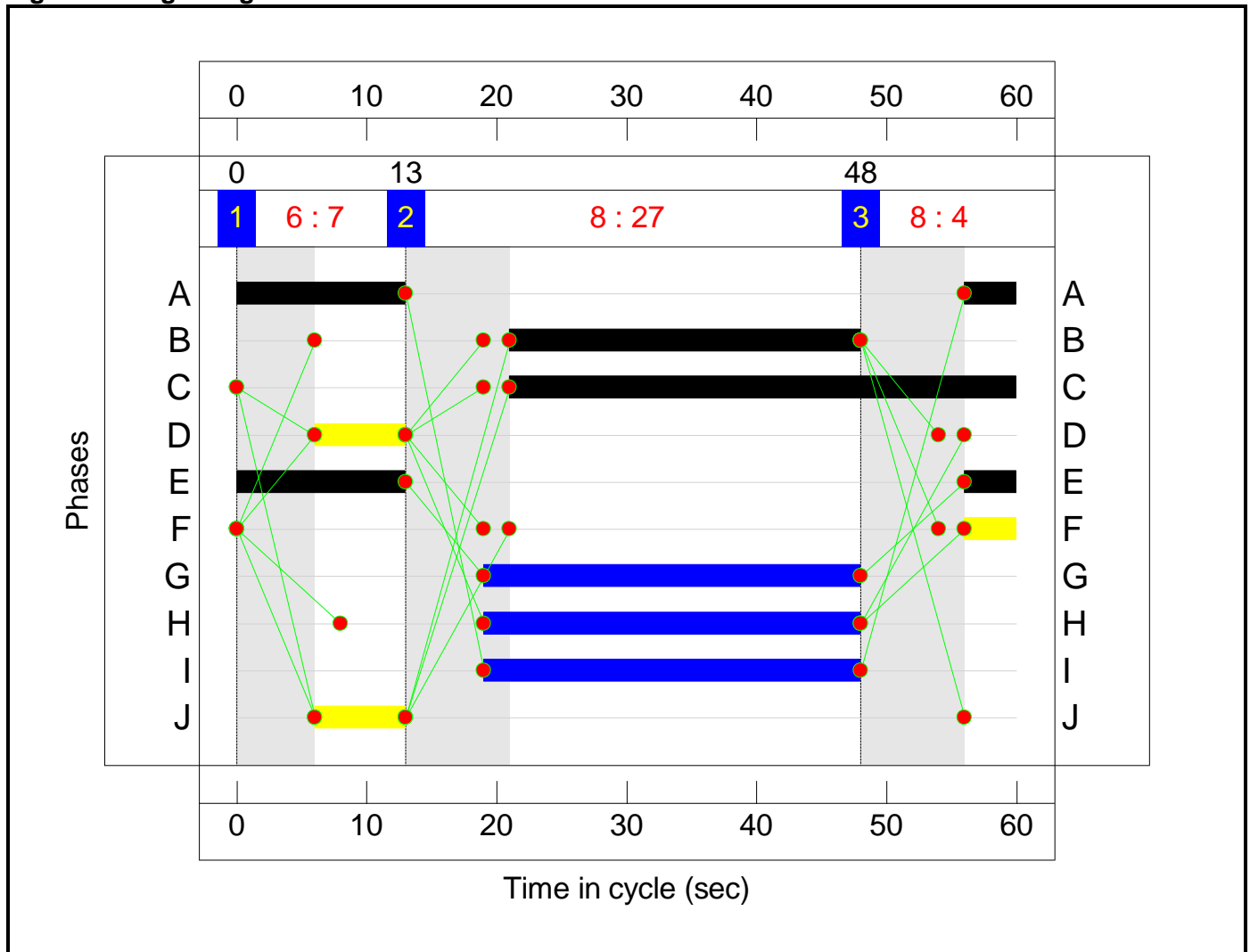
Stage Sequence Diagram




Stage Timings

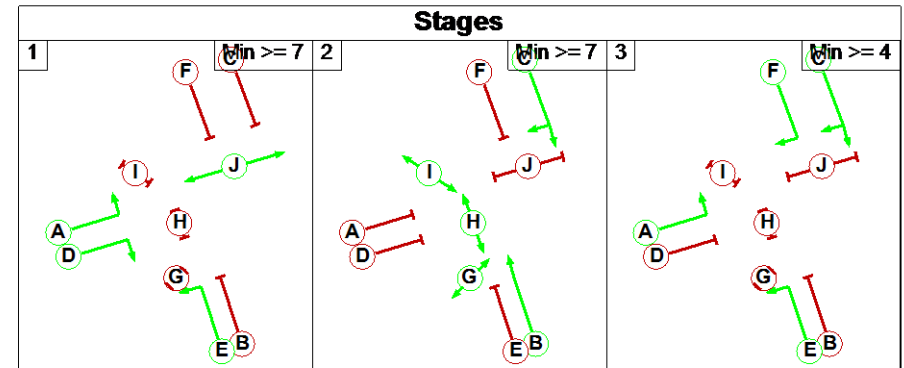
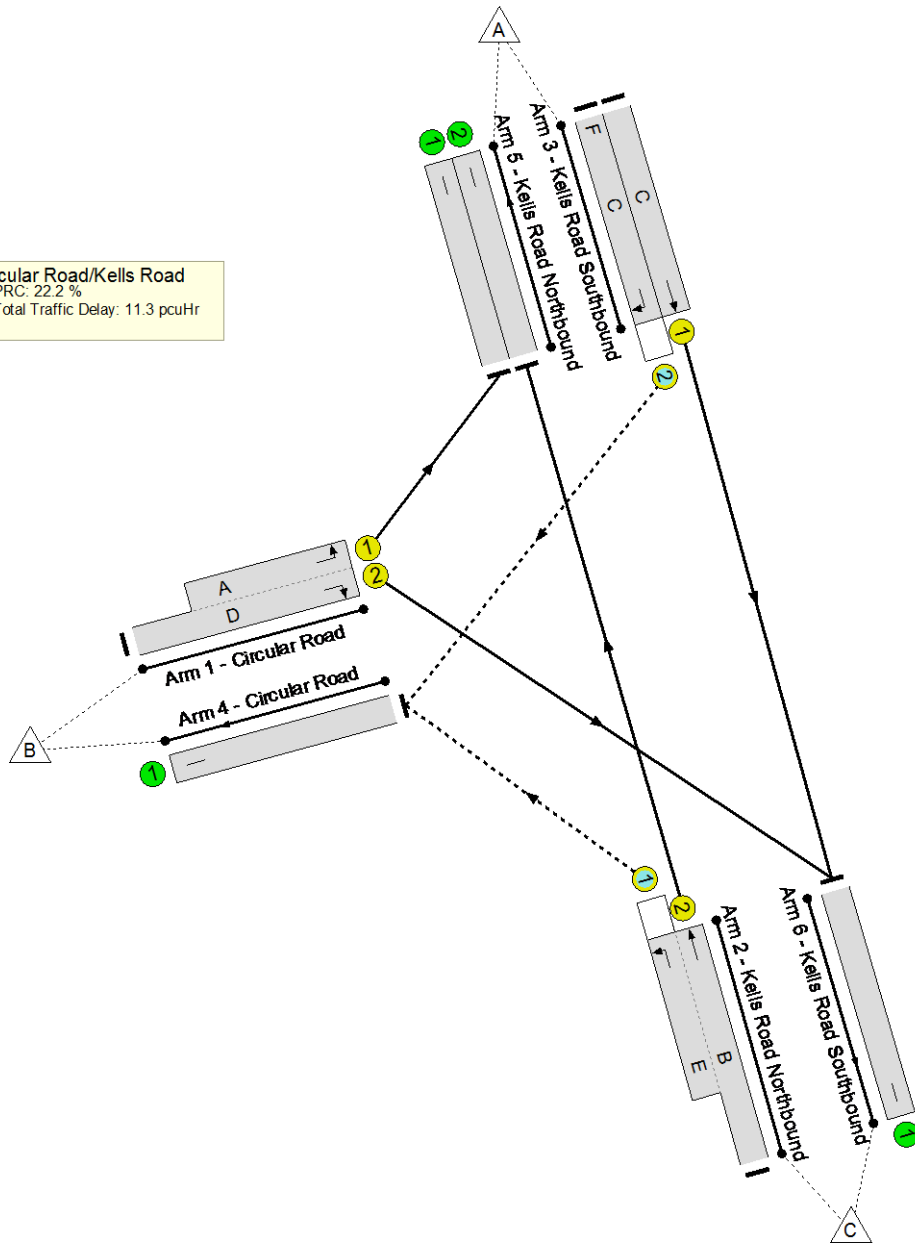
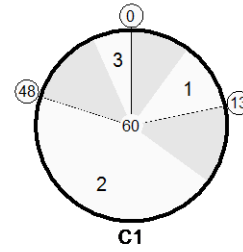
Stage	1	2	3
Duration	7	27	4
Change Point	0	13	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 22.2 %
 Total Traffic Delay: 11.3 pcuHr



Full Input Data And Results

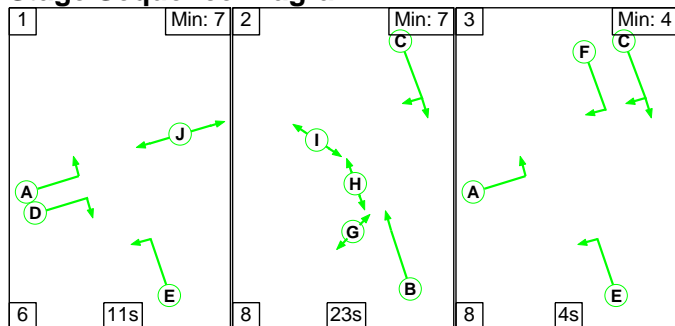
Network Results

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	-	-		-	-	-	-	-	-	73.7%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	73.7%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	7:17	-	528	1847:1831	781	67.6%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	27:17	-	843	1975:1975	1145	73.7%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	39	-	555	1945	1297	42.8%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	39	4	266	1787	602	44.2%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%

Full Input Data And Results

Scenario 10: 'PM Opening Year + 5 Years With Development Flows' (FG10: 'PM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

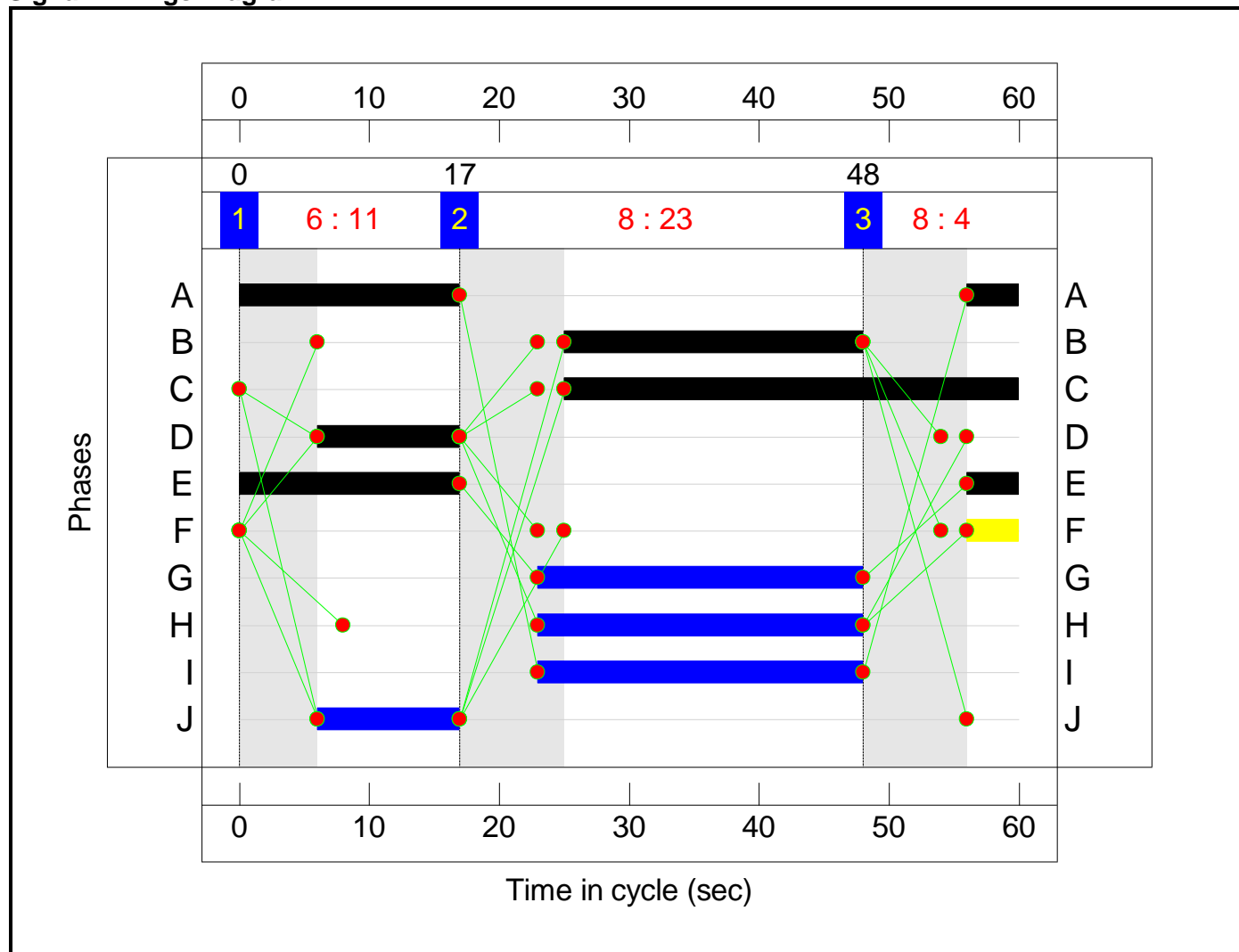
Stage Sequence Diagram



Stage Timings

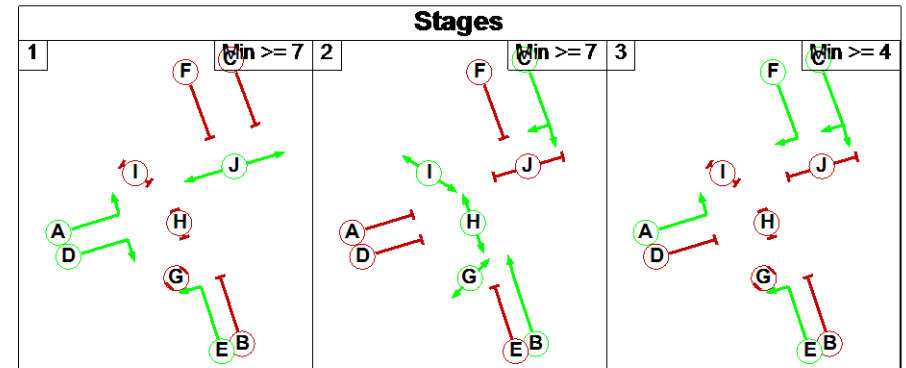
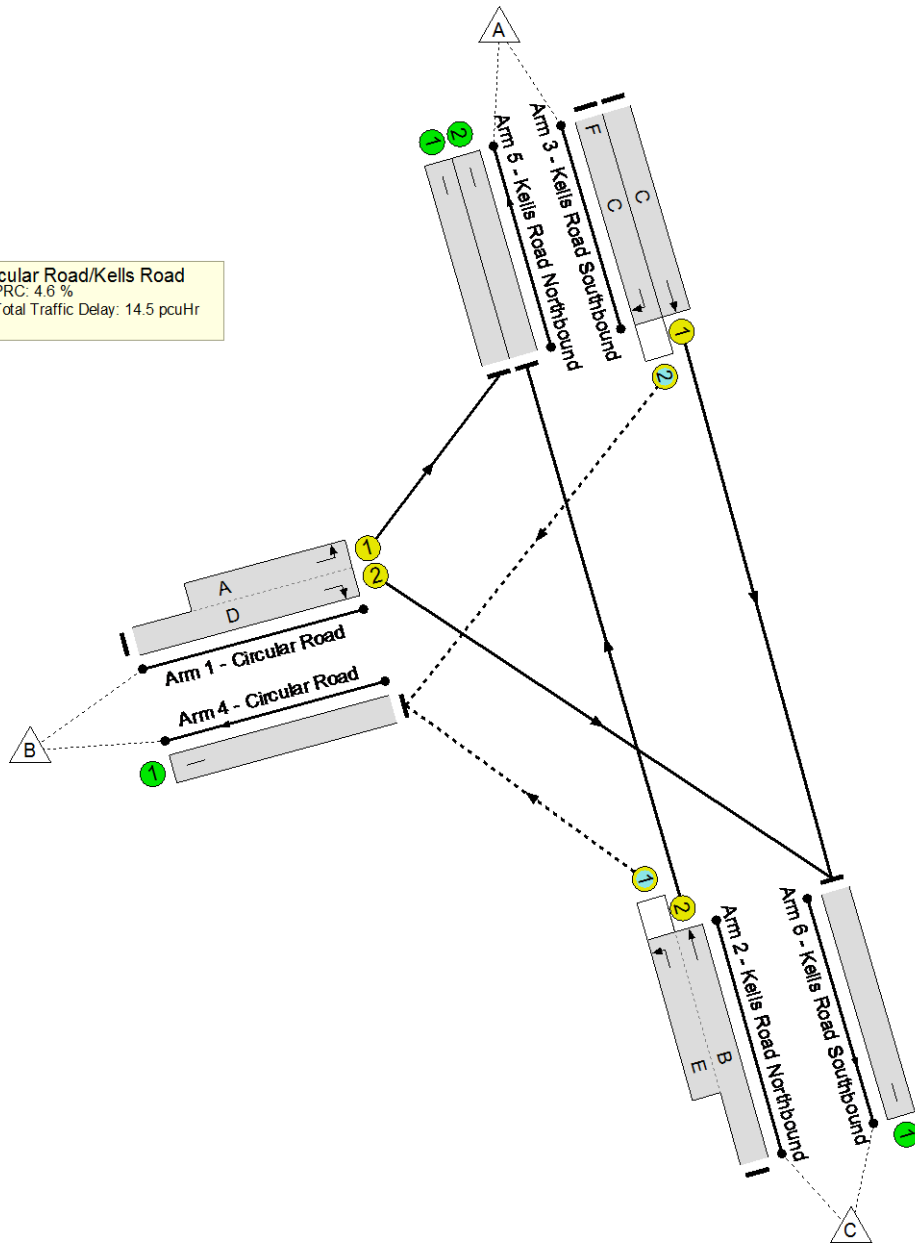
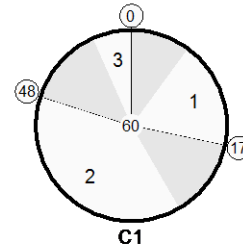
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Circular Road/Kells Road
 PRC: 4.6 %
 Total Traffic Delay: 14.5 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	-	-	N/A	-	-		-	-	-	-	-	-	86.0%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	86.0%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	621	1847:1831	750	82.8%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	879	1975:1975	1022	86.0%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	401	1945	1167	34.4%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	195	1787	513	38.0%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%

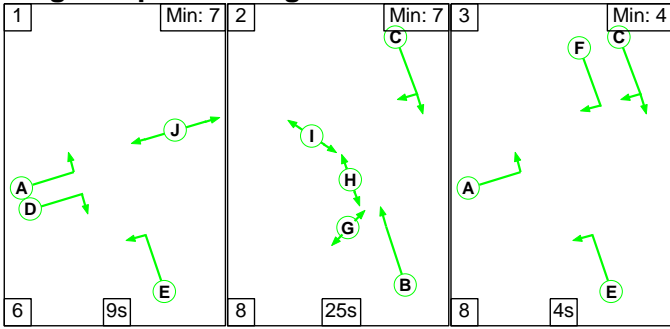
Full Input Data And Results

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	-	-	198	246	15	7.9	5.8	0.7	14.5	-	-	-	-	
Circular Road/Kells Road	-	-	198	246	15	7.9	5.8	0.7	14.5	-	-	-	-	
1/2+1/1	621	621	-	-	-	3.2	2.3	-	5.6	32.2	4.8	2.3	7.2	
2/2+2/1	879	879	102	153	9	3.7	3.0	0.1	6.7	27.6	9.2	3.0	12.1	
3/1	401	401	-	-	-	0.7	0.3	-	0.9	8.4	3.3	0.3	3.6	
3/2	195	195	96	93	7	0.3	0.3	0.6	1.3	23.4	1.4	0.3	1.7	
4/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	707	707	-	-	-	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):		14.49	Cycle Time (s):		60	PRC Over All Lanes (%):		4.6
						Total Delay Over All Lanes(pcuHr):		14.49						

Full Input Data And Results

Scenario 11: 'AM Opening Year + 15 Years Without Development Flows' (FG11: 'AM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

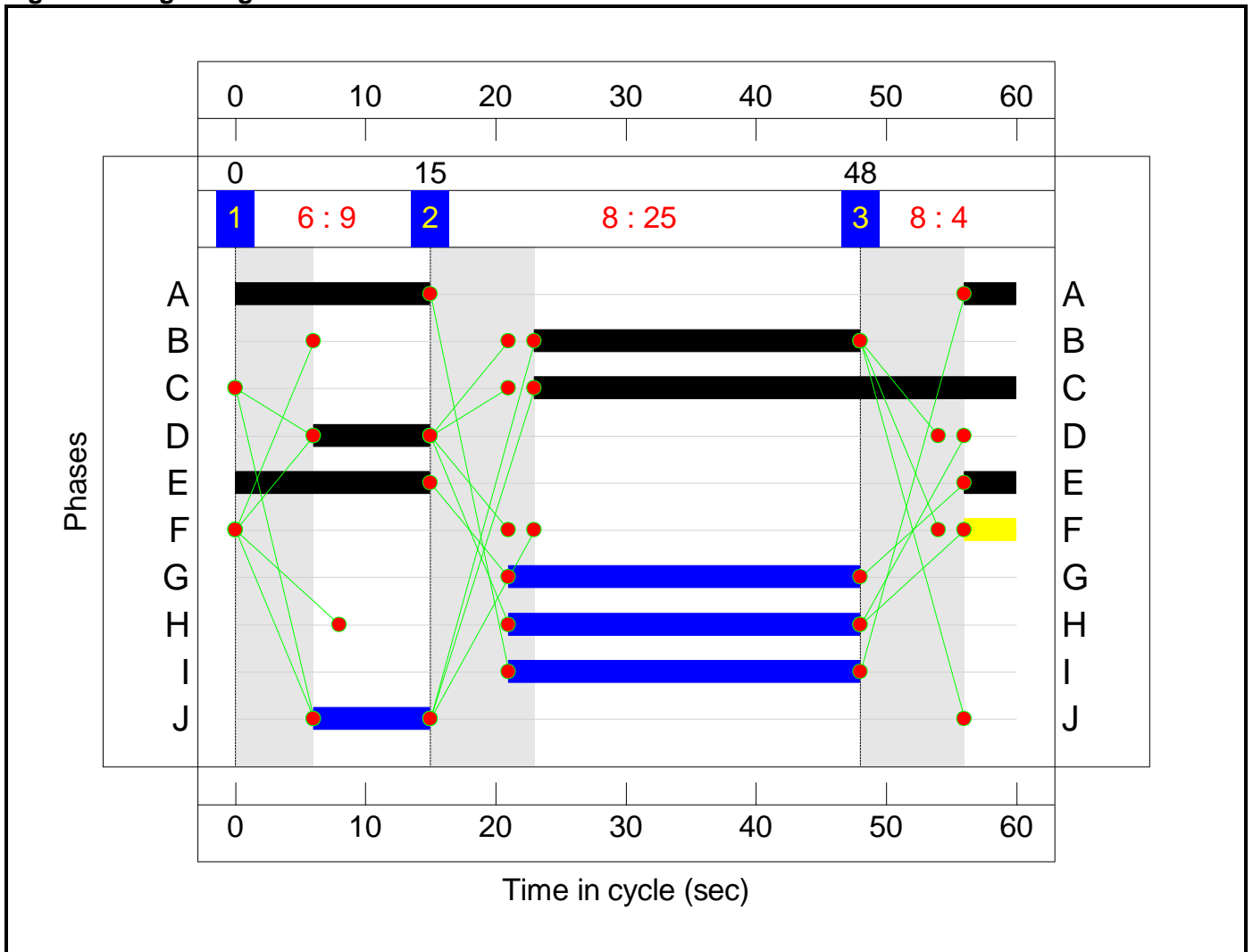
Stage Sequence Diagram




Stage Timings

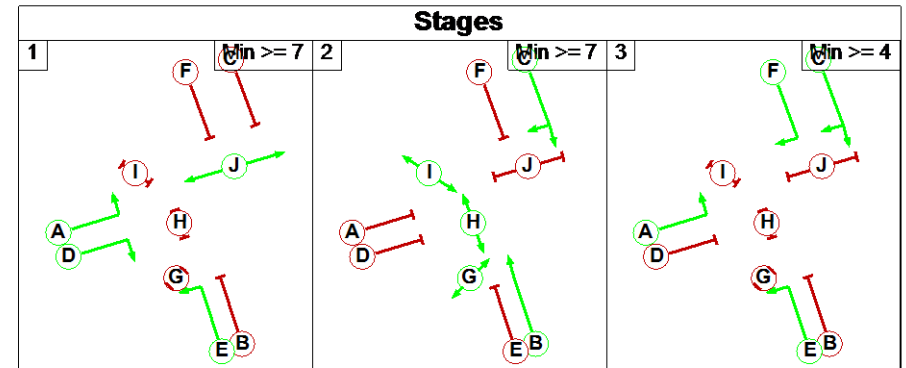
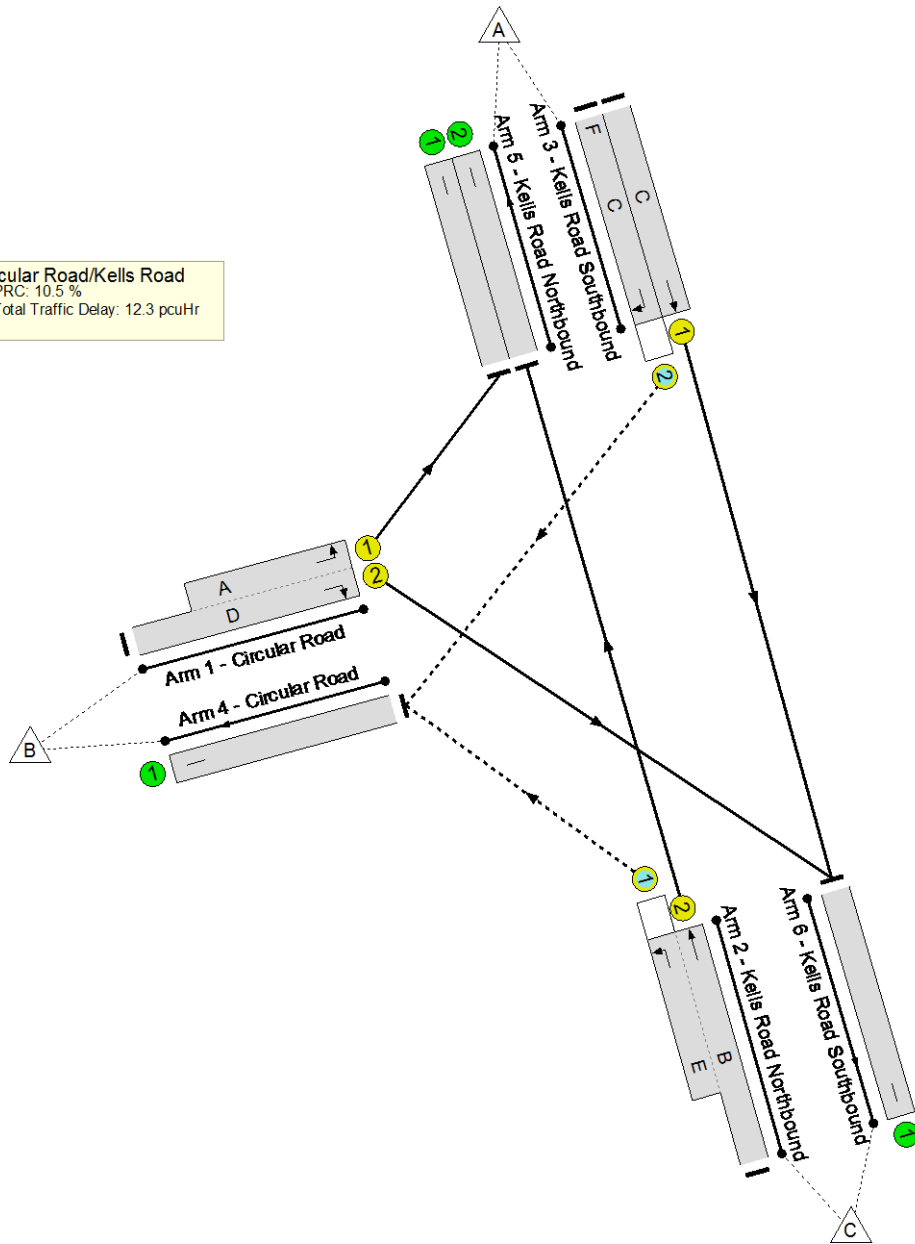
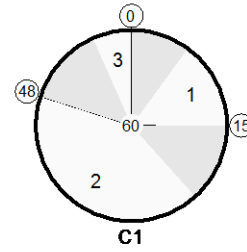
Stage	1	2	3
Duration	9	25	4
Change Point	0	15	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 10.5 %
 Total Traffic Delay: 12.3 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	-	-		-	-	-	-	-	-	81.4%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	9:19	-	456	1847:1831	616	74.1%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	25:19	-	878	1975:1975	1078	81.4%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	37	-	578	1945	1232	46.9%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	37	4	214	1787	545	39.3%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	470	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	622	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%

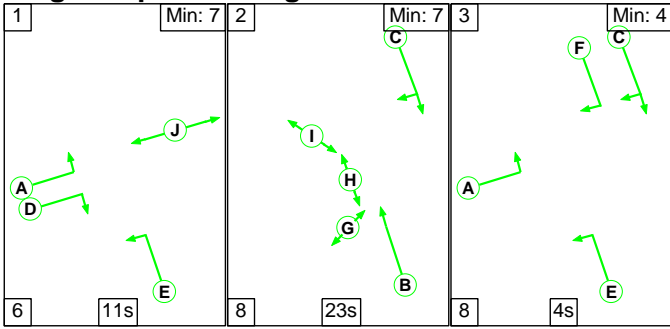
Full Input Data And Results

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	-	-	227	227	16	7.2	4.3	0.7	12.3	-	-	-	-
Circular Road/Kells Road	-	-	227	227	16	7.2	4.3	0.7	12.3	-	-	-	-
1/2+1/1	456	456	-	-	-	2.5	1.4	-	3.9	30.6	3.6	1.4	5.0
2/2+2/1	878	878	100	147	9	3.5	2.1	0.1	5.7	23.6	8.5	2.1	10.6
3/1	578	578	-	-	-	0.9	0.4	-	1.4	8.5	5.0	0.4	5.4
3/2	214	214	127	80	7	0.3	0.3	0.7	1.3	21.9	1.4	0.3	1.7
4/1	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 10.5 Total Delay for Signalled Lanes (pcuHr): 12.28 Cycle Time (s): 60 PRC Over All Lanes (%): 10.5 Total Delay Over All Lanes(pcuHr): 12.28</p>													

Full Input Data And Results

Scenario 12: 'PM Opening Year + 15 Years Without Development Flows' (FG12: 'PM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

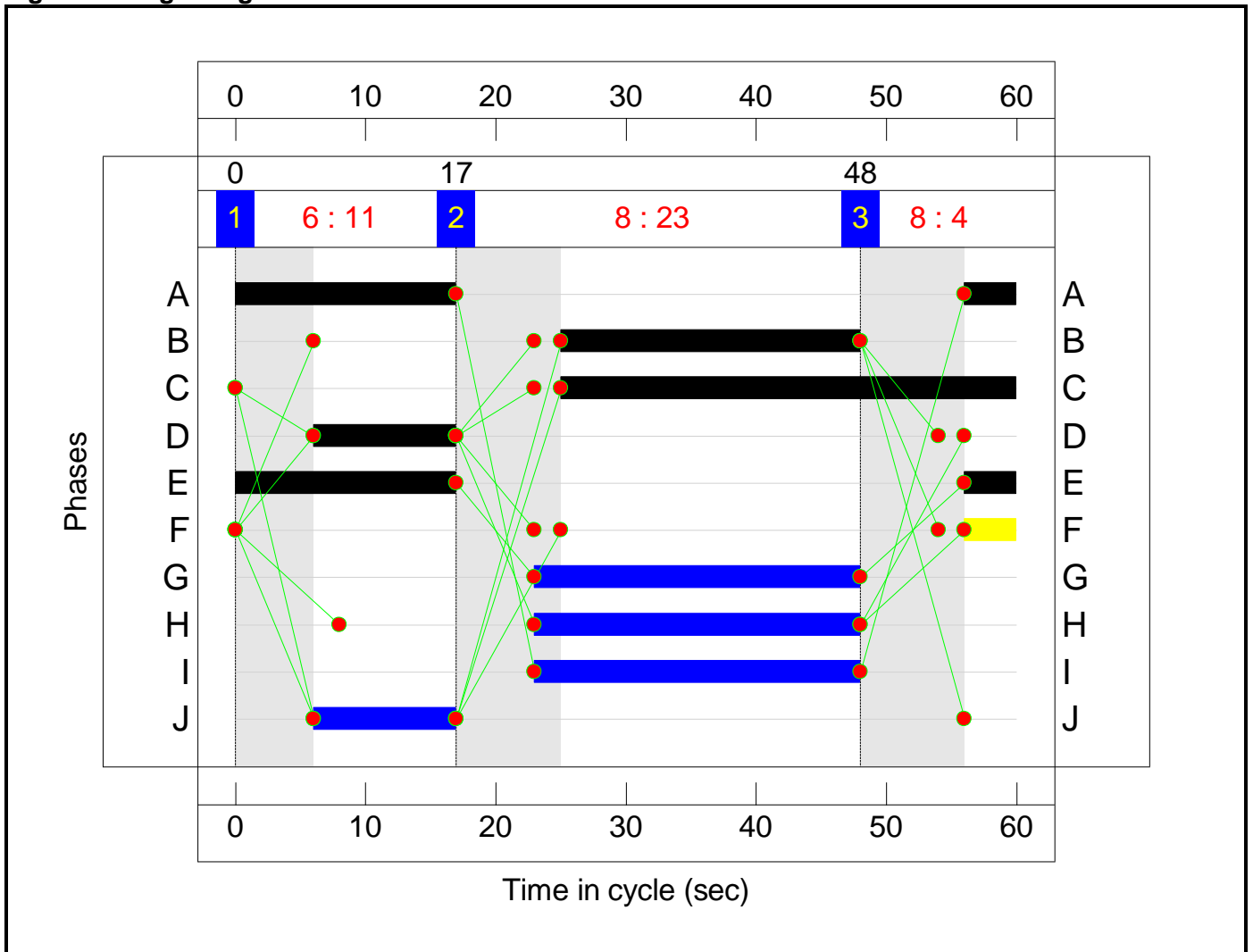
Stage Sequence Diagram



Stage Timings

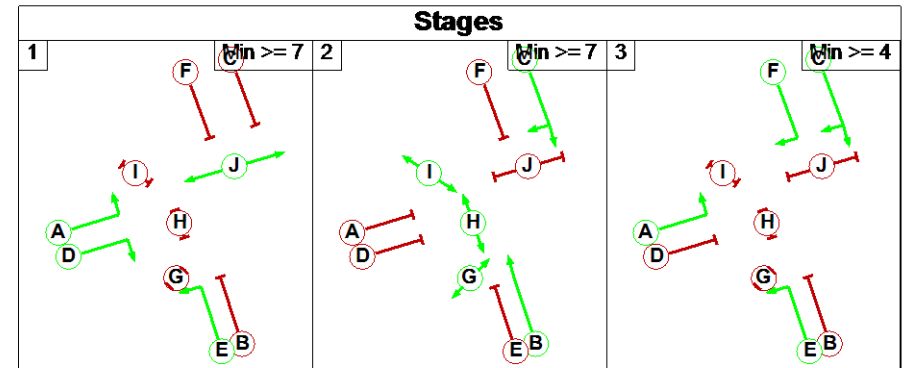
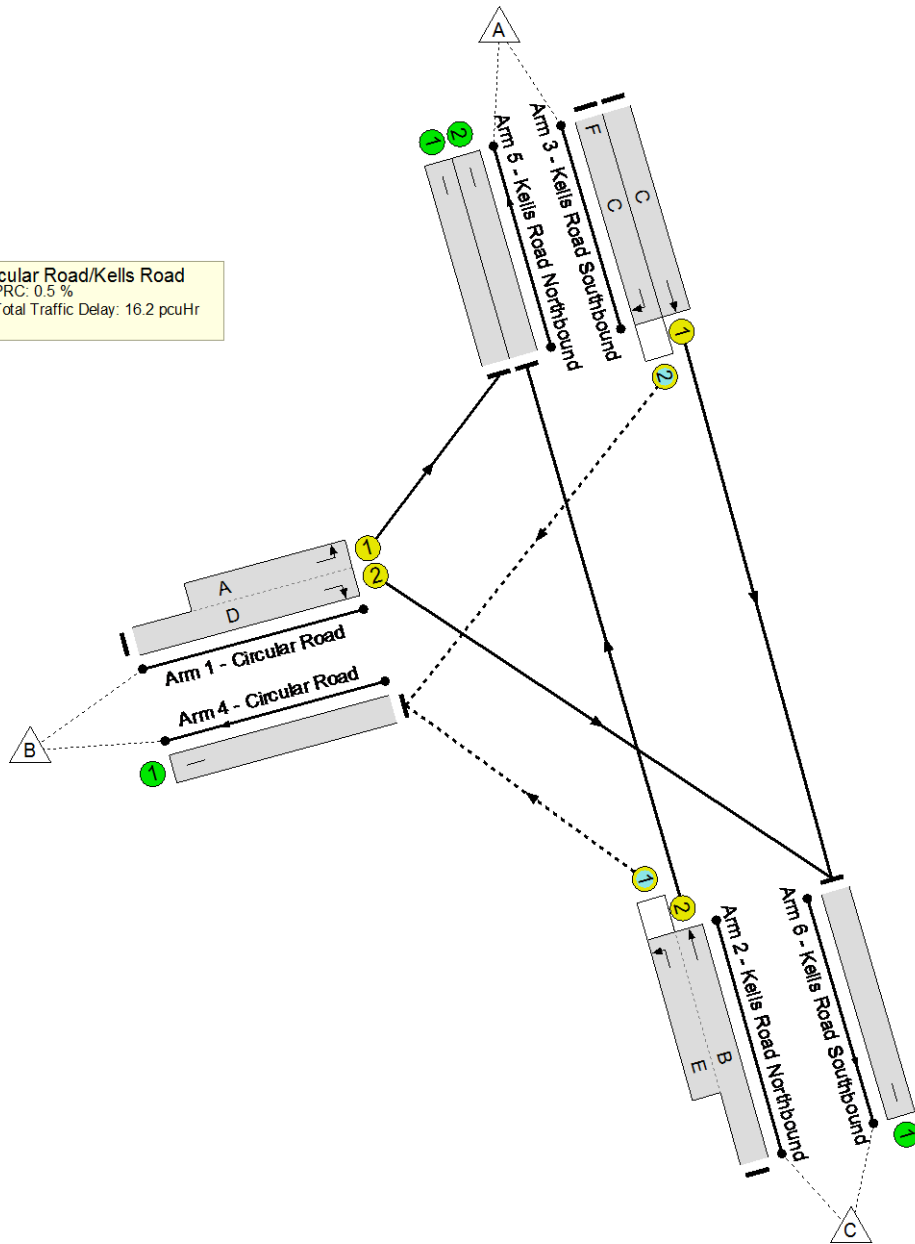
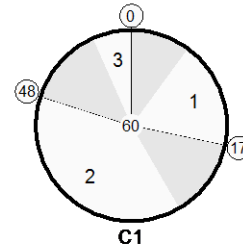
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Circular Road/Kells Road
 PRC: 0.5 %
 Total Traffic Delay: 16.2 pcuHr



Full Input Data And Results

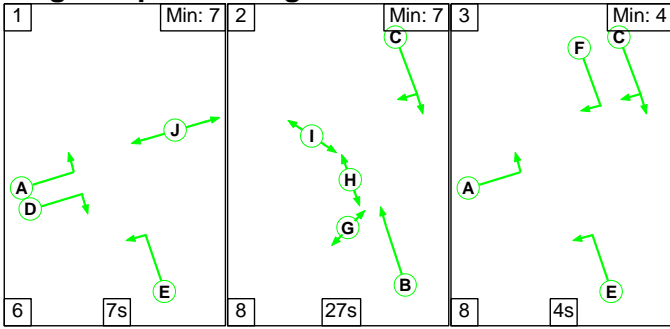
Network Results

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	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	613	1847:1831	710	86.4%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	915	1975:1975	1022	89.5%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	418	1945	1167	35.8%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	154	1787	492	31.3%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	640	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%

Full Input Data And Results

Scenario 13: 'AM Opening Year + 15 Years With Development Flows' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

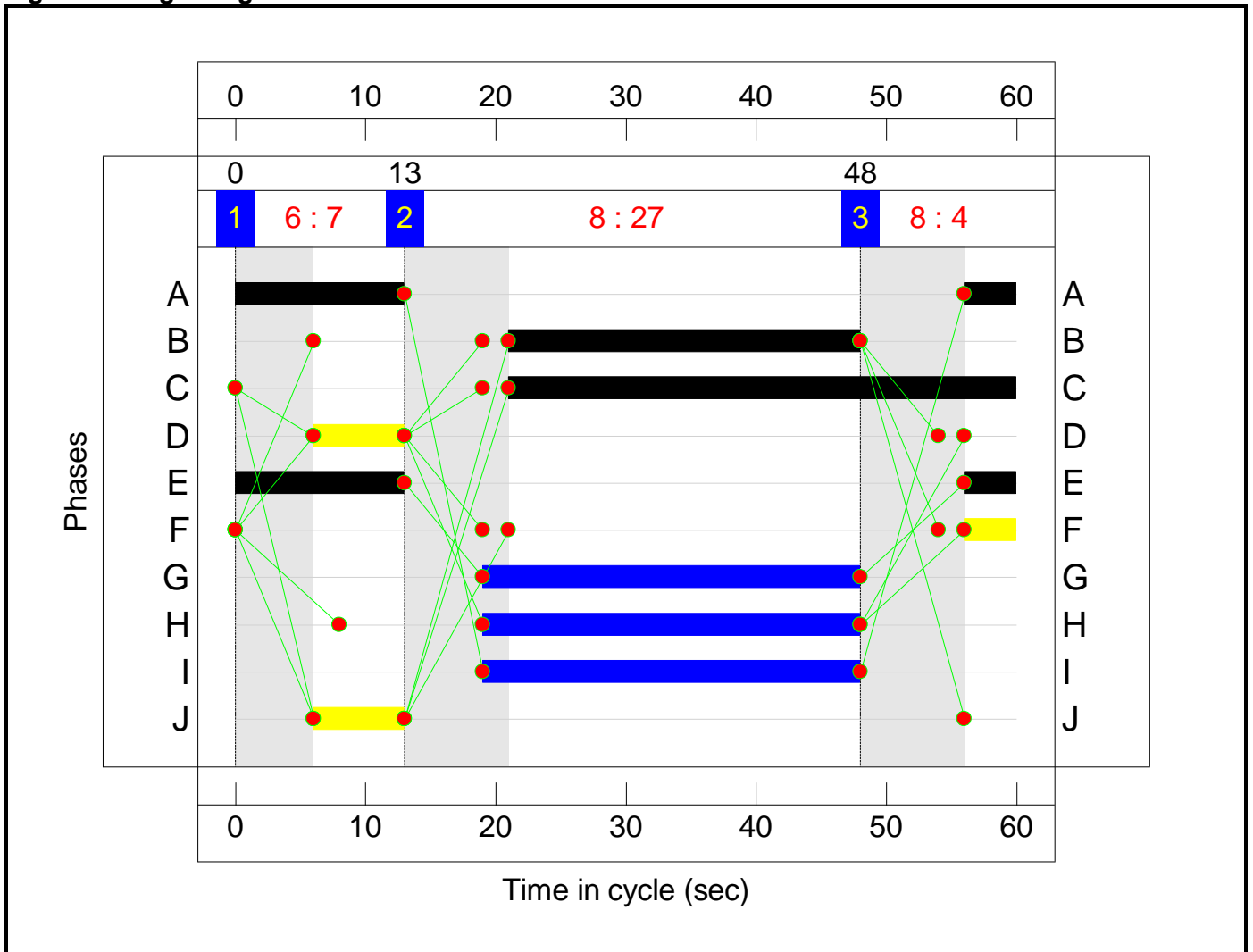
Stage Sequence Diagram




Stage Timings

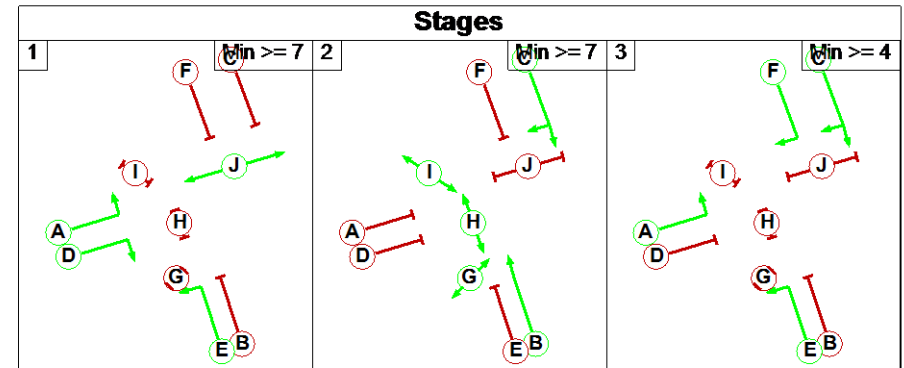
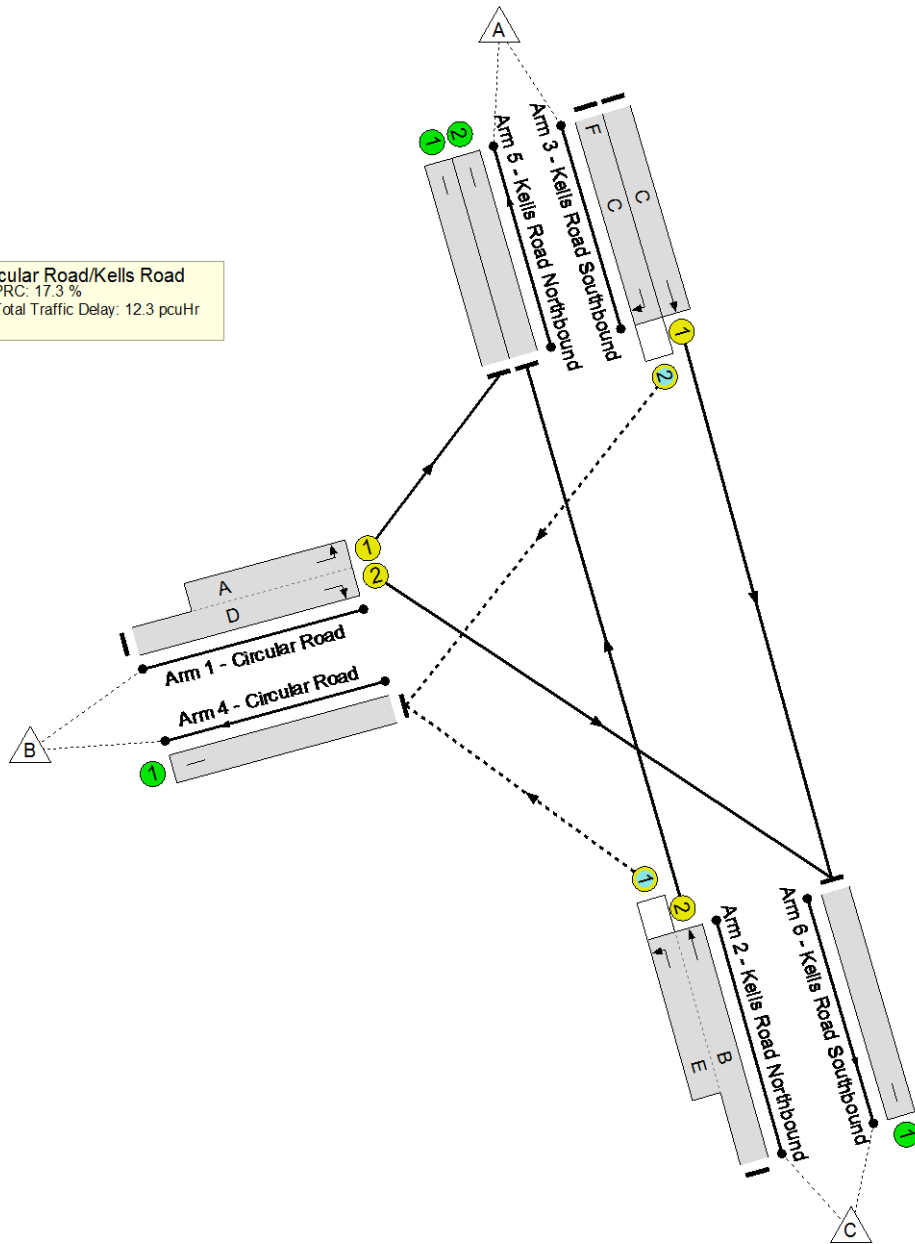
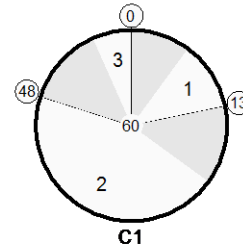
Stage	1	2	3
Duration	7	27	4
Change Point	0	13	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

 Circular Road/Kells Road
 PRC: 17.3 %
 Total Traffic Delay: 12.3 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	-	-		-	-	-	-	-	-	76.7%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	7:17	-	546	1847:1831	770	70.9%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	27:17	-	878	1975:1975	1144	76.7%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	39	-	578	1945	1297	44.6%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	39	4	275	1787	583	47.2%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	622	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%

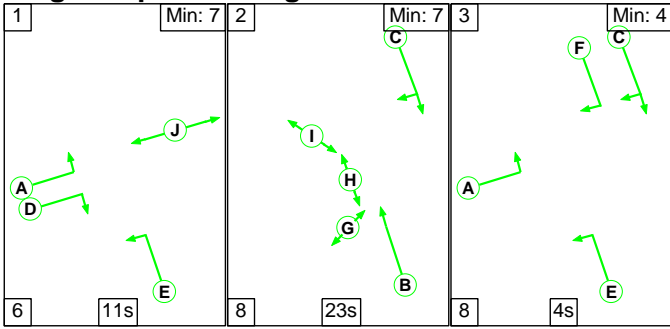
Full Input Data And Results

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	-	-	260	253	18	7.7	3.7	0.9	12.3	-	-	-	-
Circular Road/Kells Road	-	-	260	253	18	7.7	3.7	0.9	12.3	-	-	-	-
1/2+1/1	546	546	-	-	-	3.2	1.2	-	4.4	29.0	4.4	1.2	5.6
2/2+2/1	878	878	95	153	9	3.4	1.6	0.1	5.1	20.8	7.9	1.6	9.6
3/1	578	578	-	-	-	0.8	0.4	-	1.2	7.2	4.5	0.4	4.9
3/2	275	275	165	101	9	0.4	0.4	0.8	1.6	21.4	1.8	0.4	2.2
4/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 17.3 Total Delay for Signalled Lanes (pcuHr): 12.28 Cycle Time (s): 60 PRC Over All Lanes (%): 17.3 Total Delay Over All Lanes(pcuHr): 12.28</p>													

Full Input Data And Results

Scenario 14: 'PM Opening Year + 15 Years With Development Flows' (FG14: 'PM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

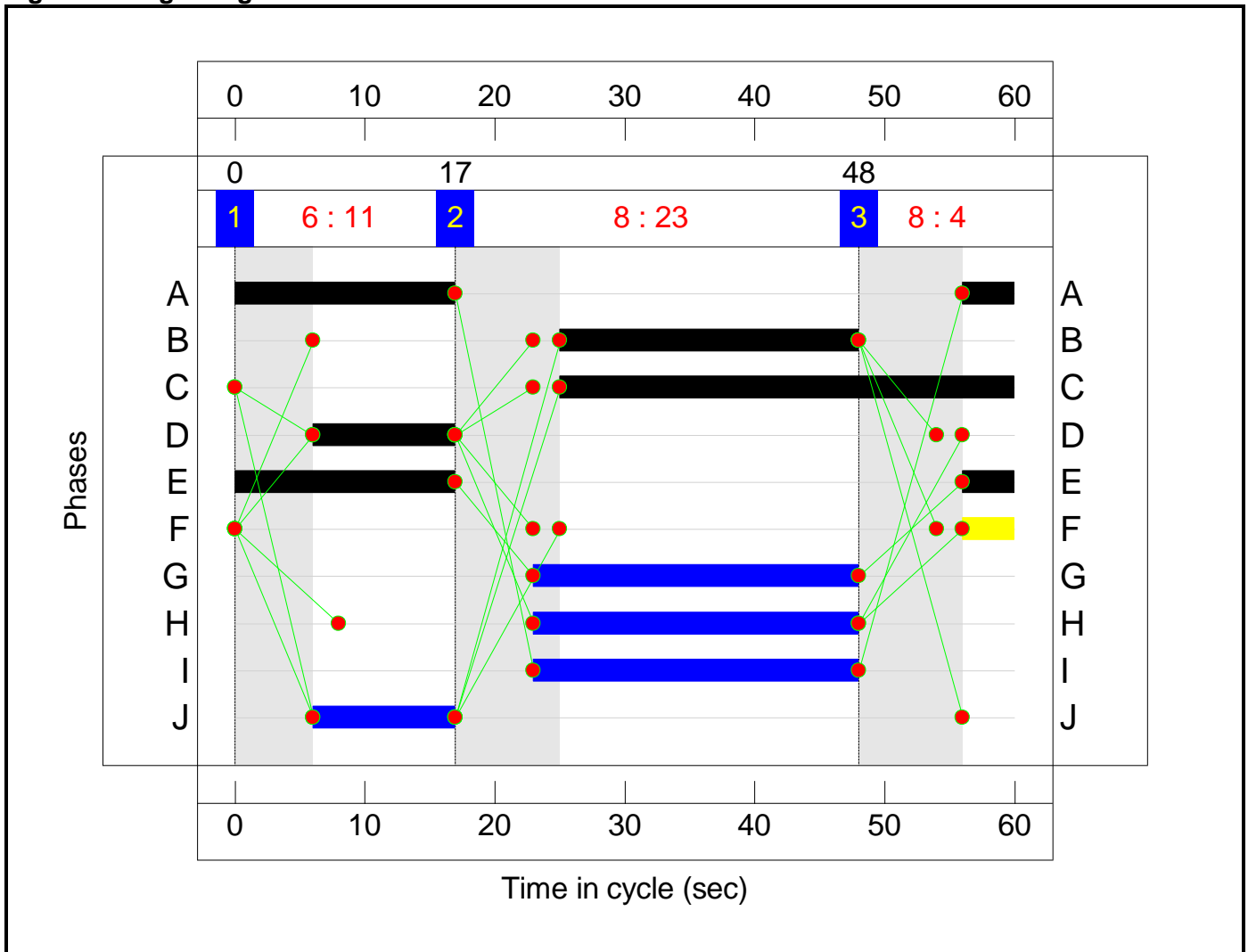
Stage Sequence Diagram



Stage Timings

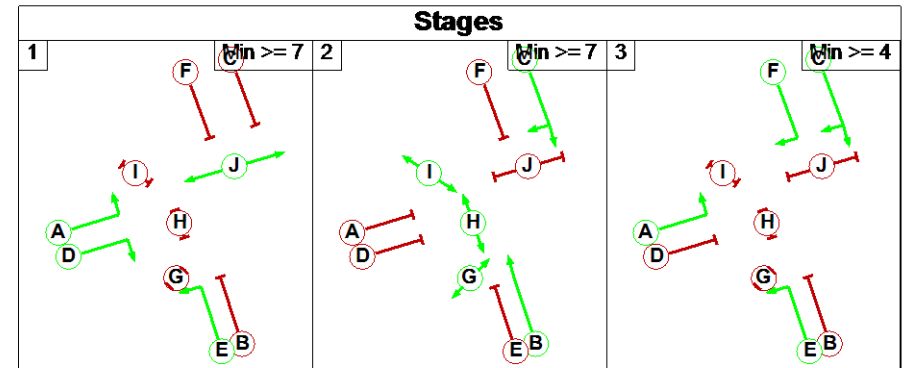
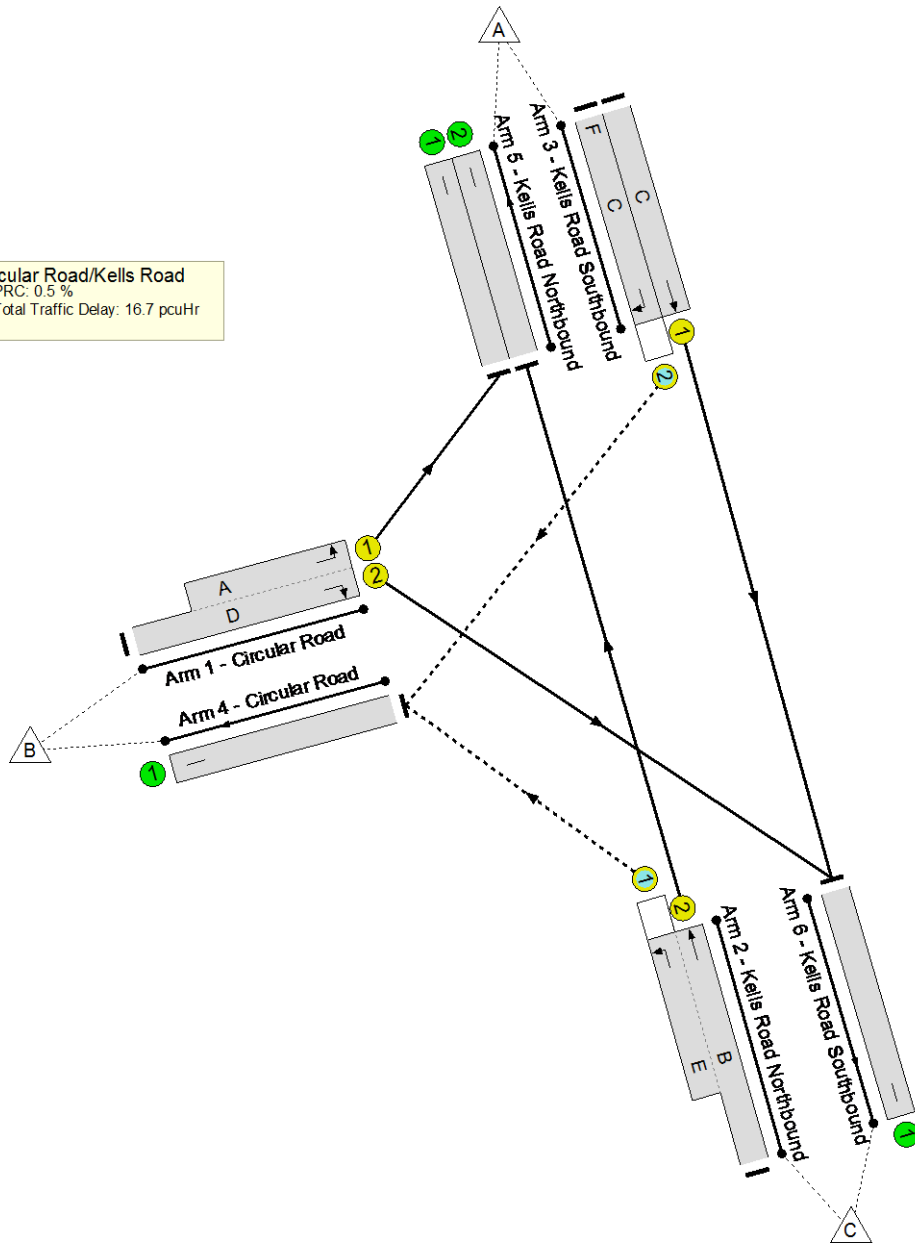
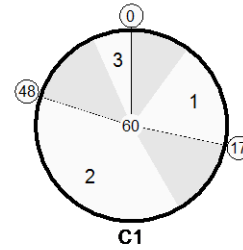
Stage	1	2	3
Duration	11	23	4
Change Point	0	17	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Circular Road/Kells Road
 PRC: 0.5 %
 Total Traffic Delay: 16.7 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	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Circular Road/Kells Road	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/2+1/1	Circular Road Left Right	U	N/A	N/A	D A		1	11:21	-	646	1847:1831	748	86.4%
2/2+2/1	Kells Road Northbound Left Ahead	U+O	N/A	N/A	B E		1	23:21	-	915	1975:1975	1022	89.5%
3/1	Kells Road Southbound Ahead	U	N/A	N/A	C		1	35	-	418	1945	1167	35.8%
3/2	Kells Road Southbound Right	O	N/A	N/A	C	F	1	35	4	201	1787	492	40.9%
4/1	Circular Road	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%
5/1	Kells Road Northbound	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
5/2	Kells Road Northbound	U	N/A	N/A	-		-	-	-	640	Inf	Inf	0.0%
6/1	Kells Road Southbound	U	N/A	N/A	-		-	-	-	737	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	-	-	176	284	16	8.4	7.6	0.8	16.7	-	-	-	-
Circular Road/Kells Road	-	-	176	284	16	8.4	7.6	0.8	16.7	-	-	-	-
1/2+1/1	646	646	-	-	-	3.4	3.0	-	6.4	35.5	5.1	3.0	8.1
2/2+2/1	915	915	102	164	9	3.9	4.0	0.1	8.0	31.4	10.0	4.0	13.9
3/1	418	418	-	-	-	0.7	0.3	-	1.0	8.5	3.5	0.3	3.8
3/2	201	201	74	120	7	0.4	0.3	0.7	1.4	25.0	1.5	0.3	1.9
4/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	640	640	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		0.5	Total Delay for Signalled Lanes (pcuHr):		16.73	Cycle Time (s):		60		
			PRC Over All Lanes (%):		0.5	Total Delay Over All Lanes(pcuHr):		16.73					

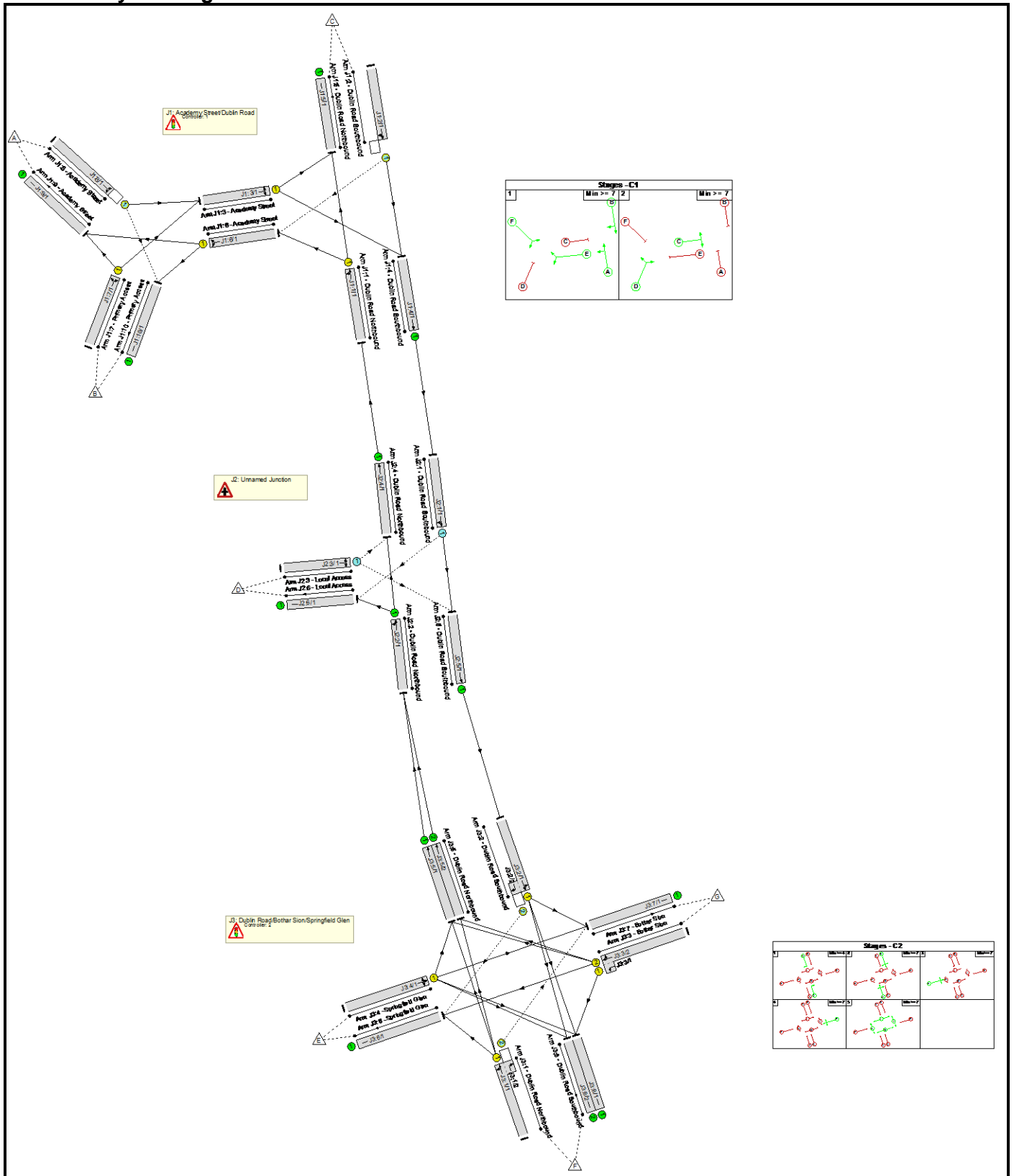
NAVAN Network

Full Input Data And Results

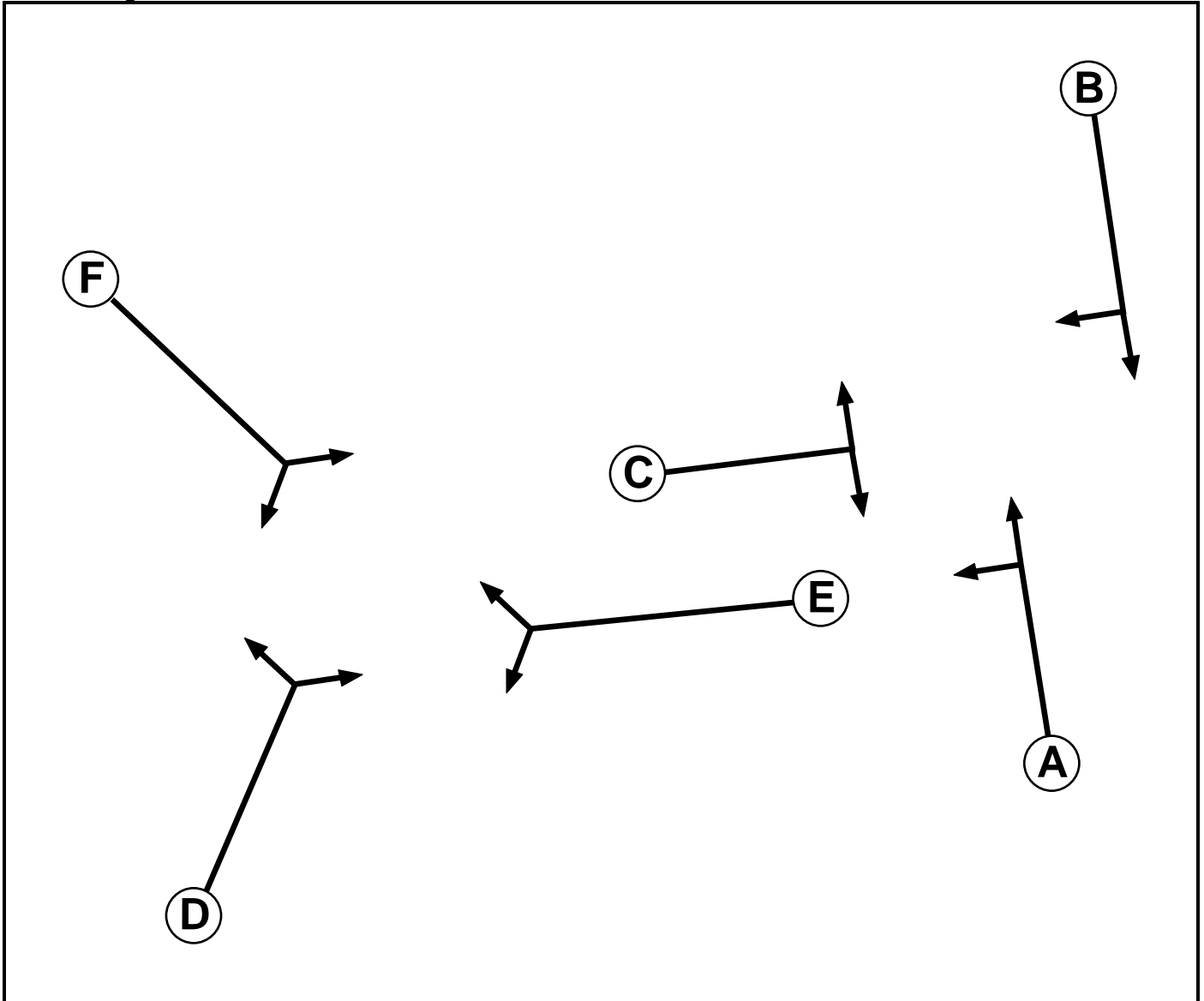
User and Project Details

Project:	P190101 - NAVAN, Academy Street
Title:	NAVAN, Academy Street
Location:	Academy Street
File name:	P0162-1109-02 NAVAN Network RR67.lsg3x
Author:	Ronan Kearns
Company:	Pinnacle Consulting Engineers
Address:	67a Patrick Street, Dun Laoghiare, Co. Dublin
Notes:	

Network Layout Diagram



C1
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	Traffic		7	7
F	Traffic		7	7

Full Input Data And Results

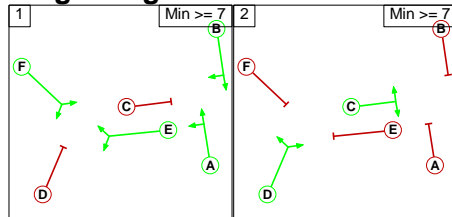
Phase Intergrens Matrix

		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A	-	-	6	-	-	-
	B	-	-	6	-	-	-
	C	6	6	-	-	-	-
	D	-	-	-	-	6	6
	E	-	-	-	6	-	-
	F	-	-	-	6	-	-

Phases in Stage

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

Stage Diagram



Phase Delays

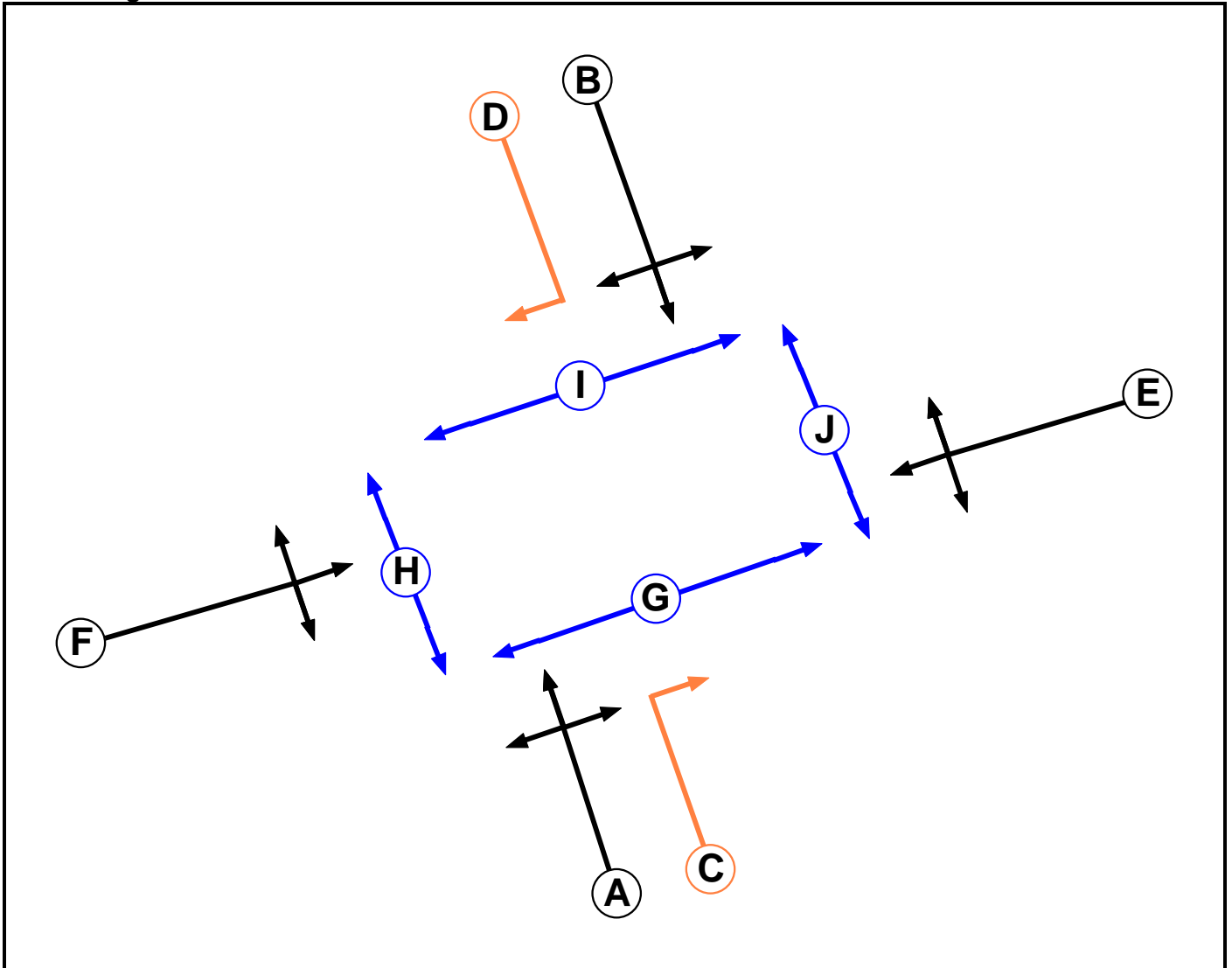
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1	-	6
	2	6	-

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Filter with Closing Amber (Not UK)		4	4
D	Filter with Closing Amber (Not UK)		4	4
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7

Full Input Data And Results

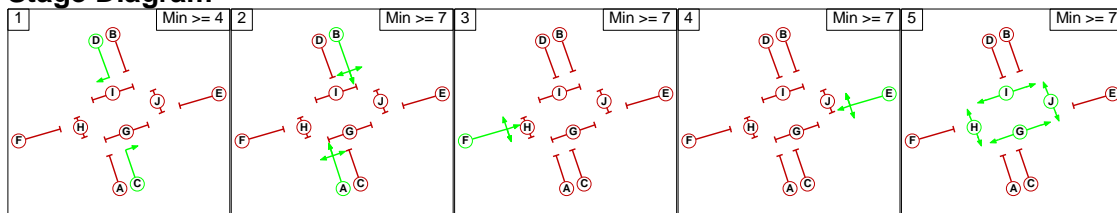
Phase Intergrens Matrix

		Starting Phase									
		A	B	C	D	E	F	G	H	I	J
Terminating Phase	A	-	-	6	6	6	5	7	8	-	
	B	-	-	6	-	6	6	8	-	6	6
	C	-	6	-	-	6	6	6	-	-	8
	D	7	-	-	-	6	6	-	8	6	-
	E	6	6	6	6	-	6	6	8	8	6
	F	6	7	6	6	7	-	8	6	7	8
	G	8	8	8	-	8	8	-	-	-	-
	H	8	-	-	8	8	8	-	-	-	-
	I	8	8	-	8	8	8	-	-	-	-
	J	-	8	8	-	8	8	-	-	-	-

Phases in Stage

Stage No.	Phases in Stage
1	C D
2	A B
3	F
4	E
5	G H I J

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1	-	7	6	6	8
	2	6	-	6	6	8
	3	6	7	-	7	8
	4	6	6	6	-	8
	5	8	8	8	8	-

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Academy Street/Dublin Road											
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)
J1:2/1 (Dublin Road Southbound)	J1:6/1 (Right)	1439	0	J1:1/1	1.09	All	2.00	2.00	0.50	2	2.00
J1:8/1 (Academy Street)	J1:10/1 (Right)	1439	0	J1:6/1	1.09	All	2.00	-	0.50	2	2.00

Junction: J2: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:1/1 (Dublin Road Southbound)	J2:6/1 (Right)	850	0	J2:2/1	0.35	All	-	-	-	-	-
	J2:4/1 (Left)	715	0	J2:2/1	0.22	To J2:4/1 (Ahead)	-	-	-	-	-
J2:3/1 (Local Access)	J2:5/1 (Right)	600	0	J2:2/1	0.22	To J2:4/1 (Ahead)	-	-	-	-	-
				J2:1/1	0.19	All	-	-	-	-	-

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen											
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)
J3:1/2 (Dublin Road Northbound)	J3:7/1 (Right)	1439	0	J3:2/1	1.09	All	2.00	-	0.50	2	2.00
				J3:2/2	1.09	None					
J3:2/2 (Dublin Road Southbound)	J3:6/1 (Right)	1439	0	J3:1/1	1.09	All	2.00	-	0.50	2	2.00
				J3:1/2	1.09	None					

Full Input Data And Results

Lane Input Data

Junction: J1: Academy Street/Dublin Road												
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)
J1:1/1 (Dublin Road Northbound)	U	A	2	3	8.7	Geom	-	3.25	0.00	Y	Arm J1:5 Ahead	Inf
											Arm J1:6 Left	16.00
J1:2/1 (Dublin Road Southbound)	O	B	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:4 Ahead	Inf
											Arm J1:6 Right	19.00
J1:3/1 (Academy Street)	U	C	2	3	60.0	Geom	-	5.00	0.00	Y	Arm J1:4 Right	22.00
											Arm J1:5 Left	18.00
J1:4/1 (Dublin Road Southbound)	U		2	3	8.7	Inf	-	-	-	-	-	-
J1:5/1 (Dublin Road Northbound)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1 (Academy Street)	U	E	2	3	6.1	Geom	-	5.00	0.00	Y	Arm J1:9 Right	Inf
											Arm J1:10 Left	Inf
J1:7/1 (Primary Access)	U	D	2	3	60.0	Geom	-	2.75	0.00	Y	Arm J1:3 Right	Inf
											Arm J1:9 Left	Inf
J1:8/1 (Academy Street)	O	F	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:3 Left	Inf
											Arm J1:10 Right	Inf
J1:9/1 (Academy Street)	U		2	3	60.0	Geom	-	4.00	0.00	Y		
J1:10/1 (Primary Access)	U		2	3	60.0	Geom	-	2.75	0.00	Y		

Full Input Data And Results

Junction: J2: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Dublin Road Southbound)	O		2	3	8.7	Geom	-	3.25	0.00	Y	Arm J2:5 Ahead	Inf
											Arm J2:6 Right	Inf
J2:2/1 (Dublin Road Northbound)	U		2	3	27.0	Geom	-	3.25	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J2:6 Left	Inf
J2:3/1 (Local Access)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:4 Left	Inf
											Arm J2:5 Right	Inf
J2:4/1 (Dublin Road Northbound)	U		2	3	8.7	Inf	-	-	-	-	-	-
J2:5/1 (Dublin Road Southbound)	U		2	3	27.0	Inf	-	-	-	-	-	-
J2:6/1 (Local Access)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen												
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)
J3:1/1 (Dublin Road Northbound)	U	A	2	3	60.0	User	3500	-	-	-	-	-
J3:1/2 (Dublin Road Northbound)	O	A C	2	3	2.0	Geom	-	3.50	0.00	Y	Arm J3:7 Right	Inf
J3:2/1 (Dublin Road Southbound)	U	B	2	3	27.0	User	3500	-	-	-	-	-
J3:2/2 (Dublin Road Southbound)	O	B D	2	3	2.0	Geom	-	3.60	0.00	Y	Arm J3:6 Right	16.50
J3:3/1 (Bothar Sion)	U	E	2	3	1.7	Geom	-	3.40	0.00	Y	Arm J3:8 Left	10.00
J3:3/2 (Bothar Sion)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm J3:5 Right	17.50
											Arm J3:6 Ahead	Inf
J3:4/1 (Springfield Glen)	U	F	2	3	60.0	Geom	-	4.30	0.00	Y	Arm J3:5 Left	14.00
											Arm J3:7 Ahead	Inf
											Arm J3:8 Right	20.00
J3:5/1 (Dublin Road Northbound)	U		2	3	27.0	Inf	-	-	-	-	-	-
J3:5/2 (Dublin Road Northbound)	U		2	3	8.7	Inf	-	-	-	-	-	-
J3:6/1 (Springfield Glen)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:7/1 (Bothar Sion)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:8/1 (Dublin Road Southbound)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:8/2 (Dublin Road Southbound)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base Model'	08:00	09:00	01:00	
2: 'PM Base Model'	17:00	18:00	01:00	
3: 'AM Opening Year Without Development Flows'	08:00	09:00	01:00	
4: 'PM Opening Year Without Development Flows'	17:00	18:00	01:00	
5: 'AM Opening Year With Development Flows'	08:00	09:00	01:00	
6: 'PM Opening Year With Development Flows'	17:00	18:00	01:00	
7: 'AM Opening Year + 5 Years Without Development Flows'	08:00	09:00	01:00	
8: 'PM Opening Year + 5 Years Without Development Flows'	17:00	18:00	01:00	
9: 'AM Opening Year + 5 Years With Development Flows'	08:00	09:00	01:00	
10: 'PM Opening Year + 5 Years With Development Flows'	17:00	18:00	01:00	
11: 'AM Opening Year + 15 Years Without Development Flows'	08:00	09:00	01:00	
12: 'PM Opening Year + 15 Years Without Development Flows'	17:00	18:00	01:00	
13: 'AM Opening Year + 15 Years With Development Flows'	08:00	09:00	01:00	
14: 'PM Opening Year + 15 Years With Development Flows'	17:00	18:00	01:00	

Scenario 1: 'AM Base Model' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	71	4	0	1	29	14	119
	B	152	0	15	0	1	67	32	267
	C	5	3	0	0	15	521	275	819
	D	0	0	0	0	0	0	0	0
	E	4	3	30	0	0	21	20	78
	F	79	55	489	0	8	0	94	725
	G	51	36	337	0	21	85	0	530
	Tot.	291	168	875	0	46	723	435	2538

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base Model
Junction: J1: Academy Street/Dublin Road	
J1:1/1	857
J1:2/1	704
J1:3/1	41
J1:4/1	724
J1:5/1	757
J1:6/1	121
J1:7/1	0
J1:8/1	41
J1:9/1	121
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	724
J2:2/1	857
J2:3/1	0
J2:4/1	857
J2:5/1	724
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	583(In) 504(Out)
J3:1/2 (short)	79
J3:2/1 (with short)	724(In) 713(Out)
J3:2/2 (short)	11
J3:3/1 (short)	73
J3:3/2 (with short)	424(In) 351(Out)
J3:4/1	62
J3:5/1	193
J3:5/2	664
J3:6/1	36
J3:7/1	332
J3:8/1	320
J3:8/2	248

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	86.7 %	1916	1916
				Arm J1:6 Left	16.00	13.3 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.0 %	1938	1938
				Arm J1:6 Right	19.00	1.0 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	65.9 %	1970	1970
				Arm J1:5 Left	18.00	34.1 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
				Arm J2:5 Right	Inf	0.0 %		
J2:4/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	94.9 %	1808	1808
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	5.1 %		
				Arm J3:5 Left	14.00	43.5 %		
				Arm J3:7 Ahead	Inf	27.4 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	29.0 %	1914	1914
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

		Destination							
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	31	0	1	38	14	84
	B	0	0	0	0	0	0	0	0
	C	11	0	0	0	11	432	182	636
	D	0	0	0	0	0	0	0	0
	E	2	0	15	0	0	6	6	29
	F	93	0	475	0	17	0	57	642
	G	47	0	263	0	10	100	0	420
	Tot.	153	0	784	0	39	576	259	1811

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM Base Model
Junction: J1: Academy Street/Dublin Road	
J1:1/1	895
J1:2/1	636
J1:3/1	84
J1:4/1	678
J1:5/1	784
J1:6/1	153
J1:7/1	0
J1:8/1	84
J1:9/1	153
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	678
J2:2/1	895
J2:3/1	0
J2:4/1	895
J2:5/1	678
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	642(In) 585(Out)
J3:1/2 (short)	57
J3:2/1 (with short)	678(In) 666(Out)
J3:2/2 (short)	12
J3:3/1 (short)	100
J3:3/2 (with short)	420(In) 320(Out)
J3:4/1	29
J3:5/1	171
J3:5/2	724
J3:6/1	39
J3:7/1	259
J3:8/1	338
J3:8/2	238

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	84.1 %	1912	1912
				Arm J1:6 Left	16.00	15.9 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.3 %	1937	1937
				Arm J1:6 Right	19.00	1.7 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	63.1 %	1970	1970
				Arm J1:5 Left	18.00	36.9 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
				Arm J2:5 Right	Inf	0.0 %		
J2:4/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	96.9 %	1805	1805
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.1 %		
				Arm J3:5 Left	14.00	58.6 %		
				Arm J3:7 Ahead	Inf	20.7 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	20.7 %	1896	1896
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'AM Opening Year Without Development Flows' (FG3: 'AM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	15	0	0	20	9	44
	B	0	0	0	0	0	0	0	0
	C	7	0	0	0	12	481	247	747
	D	0	0	0	0	0	0	0	0
	E	3	0	25	0	0	19	18	65
	F	71	0	451	0	7	0	85	614
	G	46	0	308	0	19	77	0	450
	Tot.	127	0	799	0	38	597	359	1920

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM Opening Year Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	904
J1:2/1	747
J1:3/1	44
J1:4/1	769
J1:5/1	799
J1:6/1	127
J1:7/1	0
J1:8/1	44
J1:9/1	127
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	769
J2:2/1	904
J2:3/1	0
J2:4/1	904
J2:5/1	769
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	614(In) 529(Out)
J3:1/2 (short)	85
J3:2/1 (with short)	769(In) 757(Out)
J3:2/2 (short)	12
J3:3/1 (short)	77
J3:3/2 (with short)	450(In) 373(Out)
J3:4/1	65
J3:5/1	205
J3:5/2	699
J3:6/1	38
J3:7/1	359
J3:8/1	336
J3:8/2	261

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	86.7 %	1916	1916
				Arm J1:6 Left	16.00	13.3 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.1 %	1939	1939
				Arm J1:6 Right	19.00	0.9 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	65.9 %	1970	1970
				Arm J1:5 Left	18.00	34.1 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	94.9 %	1808	1808
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	5.1 %		
				Arm J3:5 Left	14.00	43.1 %		
				Arm J3:7 Ahead	Inf	27.7 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	29.2 %	1915	1915
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'PM Opening Year Without Development Flows' (FG4: 'PM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	32	0	1	40	15	88
B	0	0	0	0	0	0	0	0	0
C	12	0	0	0	12	453	194	671	
D	0	0	0	0	0	0	0	0	
E	2	0	15	0	0	6	6	29	
F	96	0	499	0	18	0	60	673	
G	51	0	288	0	12	111	0	462	
Tot.	161	0	834	0	43	610	275	1923	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM Opening Year Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	951
J1:2/1	671
J1:3/1	88
J1:4/1	715
J1:5/1	834
J1:6/1	161
J1:7/1	0
J1:8/1	88
J1:9/1	161
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	715
J2:2/1	951
J2:3/1	0
J2:4/1	951
J2:5/1	715
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	673(In) 613(Out)
J3:1/2 (short)	60
J3:2/1 (with short)	715(In) 702(Out)
J3:2/2 (short)	13
J3:3/1 (short)	111
J3:3/2 (with short)	462(In) 351(Out)
J3:4/1	29
J3:5/1	186
J3:5/2	765
J3:6/1	43
J3:7/1	275
J3:8/1	360
J3:8/2	250

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	84.3 %	1912	1912
				Arm J1:6 Left	16.00	15.7 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.2 %	1937	1937
				Arm J1:6 Right	19.00	1.8 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	63.6 %	1970	1970
				Arm J1:5 Left	18.00	36.4 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	96.6 %	1806	1806
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.4 %		
				Arm J3:5 Left	14.00	58.6 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:7 Ahead	Inf	20.7 %	1896	1896
J3:4/1 (Springfield Glen)				Arm J3:8 Right	20.00	20.7 %		
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'AM Opening Year With Development Flows' (FG5: 'AM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
A	0	72	4	0	1	27	13	117	
B	152	0	15	0	1	68	32	268	
C	4	2	0	0	14	474	251	745	
D	0	0	0	0	0	0	0	0	
E	4	3	27	0	0	19	18	71	
F	72	55	445	0	7	0	86	665	
G	47	36	308	0	19	78	0	488	
Tot.	279	168	799	0	42	666	400	2354	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM Opening Year With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	997
J1:2/1	745
J1:3/1	161
J1:4/1	881
J1:5/1	799
J1:6/1	223
J1:7/1	268
J1:8/1	117
J1:9/1	279
J1:10/1	168
Junction: J2: Unnamed Junction	
J2:1/1	881
J2:2/1	997
J2:3/1	0
J2:4/1	997
J2:5/1	881
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	665(In) 579(Out)
J3:1/2 (short)	86
J3:2/1 (with short)	881(In) 865(Out)
J3:2/2 (short)	16
J3:3/1 (short)	78
J3:3/2 (with short)	488(In) 410(Out)
J3:4/1	71
J3:5/1	229
J3:5/2	768
J3:6/1	42
J3:7/1	400
J3:8/1	371
J3:8/2	295

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	78.2 %	1901	1901
				Arm J1:6 Left	16.00	21.8 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.2 %	1939	1939
				Arm J1:6 Right	19.00	0.8 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	88.2 %	1977	1977
				Arm J1:5 Left	18.00	11.8 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	57.0 %	2115	2115
				Arm J1:10 Left	Inf	43.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	43.3 %	1890	1890
				Arm J1:9 Left	Inf	56.7 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	38.5 %	2015	2015
				Arm J1:10 Right	Inf	61.5 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	95.4 %	1807	1807
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	4.6 %		
				Arm J3:5 Left	14.00	47.9 %		
				Arm J3:7 Ahead	Inf	25.4 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	26.8 %	1909	1909
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: 'PM Opening Year With Development Flows' (FG6: 'PM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
A	0	63	25	0	1	45	17	151	
B	54	0	8	0	0	20	7	89	
C	8	4	0	0	12	450	195	669	
D	0	0	0	0	0	0	0	0	
E	3	2	16	0	0	6	6	33	
F	97	65	493	0	18	0	60	733	
G	54	36	293	0	12	111	0	506	
Tot.	216	170	835	0	43	632	285	2181	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: PM Opening Year With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1059
J1:2/1	669
J1:3/1	123
J1:4/1	747
J1:5/1	835
J1:6/1	269
J1:7/1	89
J1:8/1	151
J1:9/1	216
J1:10/1	170
Junction: J2: Unnamed Junction	
J2:1/1	747
J2:2/1	1059
J2:3/1	0
J2:4/1	1059
J2:5/1	747
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	733(In) 673(Out)
J3:1/2 (short)	60
J3:2/1 (with short)	747(In) 734(Out)
J3:2/2 (short)	13
J3:3/1 (short)	111
J3:3/2 (with short)	506(In) 395(Out)
J3:4/1	33
J3:5/1	212
J3:5/2	847
J3:6/1	43
J3:7/1	285
J3:8/1	371
J3:8/2	261

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	75.7 %	1897	1897
				Arm J1:6 Left	16.00	24.3 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.2 %	1937	1937
				Arm J1:6 Right	19.00	1.8 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	73.2 %	1972	1972
				Arm J1:5 Left	18.00	26.8 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	60.2 %	2115	2115
				Arm J1:10 Left	Inf	39.8 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	39.3 %	1890	1890
				Arm J1:9 Left	Inf	60.7 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	58.3 %	2015	2015
				Arm J1:10 Right	Inf	41.7 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	97.0 %	1805	1805
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.0 %		
				Arm J3:5 Left	14.00	63.6 %		
				Arm J3:7 Ahead	Inf	18.2 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	18.2 %	1890	1890
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: 'AM Opening Year + 5 Years Without Development Flows' (FG7: 'AM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	16	0	0	21	9	46
	B	0	0	0	0	0	0	0	0
	C	7	0	0	0	12	507	260	786
	D	0	0	0	0	0	0	0	0
	E	3	0	27	0	0	20	19	69
	F	74	0	474	0	8	0	90	646
	G	48	0	325	0	20	81	0	474
	Tot.	132	0	842	0	40	629	378	2021

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: AM Opening Year + 5 Years Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	951
J1:2/1	786
J1:3/1	46
J1:4/1	809
J1:5/1	842
J1:6/1	132
J1:7/1	0
J1:8/1	46
J1:9/1	132
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	809
J2:2/1	951
J2:3/1	0
J2:4/1	951
J2:5/1	809
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	646(In) 556(Out)
J3:1/2 (short)	90
J3:2/1 (with short)	809(In) 797(Out)
J3:2/2 (short)	12
J3:3/1 (short)	81
J3:3/2 (with short)	474(In) 393(Out)
J3:4/1	69
J3:5/1	216
J3:5/2	735
J3:6/1	40
J3:7/1	378
J3:8/1	354
J3:8/2	275

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	86.9 %	1916	1916
				Arm J1:6 Left	16.00	13.1 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.1 %	1939	1939
				Arm J1:6 Right	19.00	0.9 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	65.2 %	1970	1970
				Arm J1:5 Left	18.00	34.8 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	94.9 %	1808	1808
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	5.1 %		
				Arm J3:5 Left	14.00	43.5 %		
				Arm J3:7 Ahead	Inf	27.5 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	29.0 %	1914	1914
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: 'PM Opening Year + 5 Years Without Development Flows' (FG8: 'PM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	34	0	1	42	16	93
	B	0	0	0	0	0	0	0	0
	C	12	0	0	0	12	477	204	705
	D	0	0	0	0	0	0	0	0
	E	2	0	16	0	0	7	7	32
	F	101	0	524	0	19	0	63	707
	G	54	0	305	0	12	116	0	487
	Tot.	169	0	879	0	44	642	290	2024

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: PM Opening Year + 5 Years Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1002
J1:2/1	705
J1:3/1	93
J1:4/1	752
J1:5/1	879
J1:6/1	169
J1:7/1	0
J1:8/1	93
J1:9/1	169
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	752
J2:2/1	1002
J2:3/1	0
J2:4/1	1002
J2:5/1	752
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	707(In) 644(Out)
J3:1/2 (short)	63
J3:2/1 (with short)	752(In) 739(Out)
J3:2/2 (short)	13
J3:3/1 (short)	116
J3:3/2 (with short)	487(In) 371(Out)
J3:4/1	32
J3:5/1	197
J3:5/2	805
J3:6/1	44
J3:7/1	290
J3:8/1	378
J3:8/2	264

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	84.3 %	1912	1912
				Arm J1:6 Left	16.00	15.7 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.3 %	1937	1937
				Arm J1:6 Right	19.00	1.7 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	63.4 %	1970	1970
				Arm J1:5 Left	18.00	36.6 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
				Arm J2:5 Right	Inf	0.0 %		
J2:4/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	96.8 %	1805	1805
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.2 %		
				Arm J3:5 Left	14.00	56.3 %		
				Arm J3:7 Ahead	Inf	21.9 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	21.9 %	1899	1899
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: 'AM Opening Year + 5 Years With Development Flows' (FG9: 'AM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
A	0	72	4	0	1	28	13	118	
B	152	0	15	0	1	68	32	268	
C	5	3	0	0	15	500	265	788	
D	0	0	0	0	0	0	0	0	
E	4	3	28	0	0	20	19	74	
F	76	55	469	0	8	0	91	699	
G	50	35	325	0	20	82	0	512	
Tot.	287	168	841	0	45	698	420	2459	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: AM Opening Year + 5 Years With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1045
J1:2/1	788
J1:3/1	162
J1:4/1	923
J1:5/1	841
J1:6/1	231
J1:7/1	268
J1:8/1	118
J1:9/1	287
J1:10/1	168
Junction: J2: Unnamed Junction	
J2:1/1	923
J2:2/1	1045
J2:3/1	0
J2:4/1	1045
J2:5/1	923
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	699(In) 608(Out)
J3:1/2 (short)	91
J3:2/1 (with short)	923(In) 906(Out)
J3:2/2 (short)	17
J3:3/1 (short)	82
J3:3/2 (with short)	512(In) 430(Out)
J3:4/1	74
J3:5/1	239
J3:5/2	806
J3:6/1	45
J3:7/1	420
J3:8/1	390
J3:8/2	308

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	78.7 %	1902	1902
				Arm J1:6 Left	16.00	21.3 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.0 %	1938	1938
				Arm J1:6 Right	19.00	1.0 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	88.3 %	1977	1977
				Arm J1:5 Left	18.00	11.7 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	58.4 %	2115	2115
				Arm J1:10 Left	Inf	41.6 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	43.3 %	1890	1890
				Arm J1:9 Left	Inf	56.7 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	39.0 %	2015	2015
				Arm J1:10 Right	Inf	61.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	95.3 %	1807	1807
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	4.7 %		
				Arm J3:5 Left	14.00	47.3 %		
				Arm J3:7 Ahead	Inf	25.7 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	27.0 %	1910	1910
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: 'PM Opening Year + 5 Years With Development Flows' (FG10: 'PM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
A	0	63	26	0	1	48	18	156	
B	54	0	8	0	0	20	7	89	
C	8	4	0	0	13	475	205	705	
D	0	0	0	0	0	0	0	0	
E	3	2	17	0	0	7	7	36	
F	102	65	519	0	19	0	63	768	
G	57	36	308	0	12	117	0	530	
Tot.	224	170	878	0	45	667	300	2284	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: PM Opening Year + 5 Years With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1109
J1:2/1	705
J1:3/1	128
J1:4/1	787
J1:5/1	878
J1:6/1	277
J1:7/1	89
J1:8/1	156
J1:9/1	224
J1:10/1	170
Junction: J2: Unnamed Junction	
J2:1/1	787
J2:2/1	1109
J2:3/1	0
J2:4/1	1109
J2:5/1	787
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	768(In) 705(Out)
J3:1/2 (short)	63
J3:2/1 (with short)	787(In) 773(Out)
J3:2/2 (short)	14
J3:3/1 (short)	117
J3:3/2 (with short)	530(In) 413(Out)
J3:4/1	36
J3:5/1	222
J3:5/2	887
J3:6/1	45
J3:7/1	300
J3:8/1	391
J3:8/2	276

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	76.1 %	1897	1897
				Arm J1:6 Left	16.00	23.9 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.3 %	1937	1937
				Arm J1:6 Right	19.00	1.7 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	73.4 %	1973	1973
				Arm J1:5 Left	18.00	26.6 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	61.4 %	2115	2115
				Arm J1:10 Left	Inf	38.6 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	39.3 %	1890	1890
				Arm J1:9 Left	Inf	60.7 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	59.6 %	2015	2015
				Arm J1:10 Right	Inf	40.4 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	97.1 %	1805	1805
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	2.9 %		
				Arm J3:5 Left	14.00	61.1 %		
				Arm J3:7 Ahead	Inf	19.4 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	19.4 %	1893	1893
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: 'AM Opening Year + 15 Years Without Development Flows' (FG11: 'AM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	16	0	0	22	10	48
B	0	0	0	0	0	0	0	0	0
C	7	0	0	0	13	528	271	819	
D	0	0	0	0	0	0	0	0	
E	3	0	28	0	0	21	20	72	
F	77	0	494	0	8	0	93	672	
G	50	0	338	0	21	84	0	493	
Tot.	137	0	876	0	42	655	394	2104	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: AM Opening Year + 15 Years Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	990
J1:2/1	819
J1:3/1	48
J1:4/1	844
J1:5/1	876
J1:6/1	137
J1:7/1	0
J1:8/1	48
J1:9/1	137
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	844
J2:2/1	990
J2:3/1	0
J2:4/1	990
J2:5/1	844
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	672(In) 579(Out)
J3:1/2 (short)	93
J3:2/1 (with short)	844(In) 831(Out)
J3:2/2 (short)	13
J3:3/1 (short)	84
J3:3/2 (with short)	493(In) 409(Out)
J3:4/1	72
J3:5/1	225
J3:5/2	765
J3:6/1	42
J3:7/1	394
J3:8/1	369
J3:8/2	286

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	86.9 %	1916	1916
				Arm J1:6 Left	16.00	13.1 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.1 %	1939	1939
				Arm J1:6 Right	19.00	0.9 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	66.7 %	1971	1971
				Arm J1:5 Left	18.00	33.3 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	94.9 %	1808	1808
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	5.1 %		
				Arm J3:5 Left	14.00	43.1 %		
				Arm J3:7 Ahead	Inf	27.8 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	29.2 %	1915	1915
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 12: 'PM Opening Year + 15 Years Without Development Flows' (FG12: 'PM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
Origin	A	0	0	36	0	1	44	16	97
B	0	0	0	0	0	0	0	0	0
C	13	0	0	0	13	496	213	735	
D	0	0	0	0	0	0	0	0	
E	3	0	17	0	0	7	7	34	
F	105	0	545	0	20	0	65	735	
G	56	0	317	0	13	122	0	508	
Tot.	177	0	915	0	47	669	301	2109	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: PM Opening Year + 15 Years Without Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1043
J1:2/1	735
J1:3/1	97
J1:4/1	783
J1:5/1	915
J1:6/1	177
J1:7/1	0
J1:8/1	97
J1:9/1	177
J1:10/1	0
Junction: J2: Unnamed Junction	
J2:1/1	783
J2:2/1	1043
J2:3/1	0
J2:4/1	1043
J2:5/1	783
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	735(In) 670(Out)
J3:1/2 (short)	65
J3:2/1 (with short)	783(In) 769(Out)
J3:2/2 (short)	14
J3:3/1 (short)	122
J3:3/2 (with short)	508(In) 386(Out)
J3:4/1	34
J3:5/1	206
J3:5/2	837
J3:6/1	47
J3:7/1	301
J3:8/1	395
J3:8/2	274

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	84.3 %	1912	1912
				Arm J1:6 Left	16.00	15.7 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.2 %	1937	1937
				Arm J1:6 Right	19.00	1.8 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	62.9 %	1970	1970
				Arm J1:5 Left	18.00	37.1 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	100.0 %	2115	2115
				Arm J1:10 Left	Inf	0.0 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	0.0 %	1890	1890
				Arm J1:9 Left	Inf	0.0 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	2015	2015
				Arm J1:10 Right	Inf	0.0 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	96.6 %	1805	1805
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.4 %		
				Arm J3:5 Left	14.00	58.8 %		
				Arm J3:7 Ahead	Inf	20.6 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	20.6 %	1896	1896
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 13: 'AM Opening Year + 15 Years With Development Flows' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
	A	B	C	D	E	F	G	Tot.	
A	0	71	4	0	1	29	14	119	
B	152	0	15	0	1	67	32	267	
C	5	3	0	0	15	521	275	819	
D	0	0	0	0	0	0	0	0	
E	4	3	30	0	0	21	20	78	
F	79	55	489	0	8	0	94	725	
G	51	36	337	0	21	85	0	530	
Tot.	291	168	875	0	46	723	435	2538	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: AM Opening Year + 15 Years With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1084
J1:2/1	819
J1:3/1	163
J1:4/1	955
J1:5/1	875
J1:6/1	236
J1:7/1	267
J1:8/1	119
J1:9/1	291
J1:10/1	168
Junction: J2: Unnamed Junction	
J2:1/1	955
J2:2/1	1084
J2:3/1	0
J2:4/1	1084
J2:5/1	955
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	725(In) 631(Out)
J3:1/2 (short)	94
J3:2/1 (with short)	955(In) 938(Out)
J3:2/2 (short)	17
J3:3/1 (short)	85
J3:3/2 (with short)	530(In) 445(Out)
J3:4/1	78
J3:5/1	248
J3:5/2	836
J3:6/1	46
J3:7/1	435
J3:8/1	402
J3:8/2	321

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	79.0 %	1902	1902
				Arm J1:6 Left	16.00	21.0 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	99.0 %	1939	1939
				Arm J1:6 Right	19.00	1.0 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	88.3 %	1977	1977
				Arm J1:5 Left	18.00	11.7 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	58.9 %	2115	2115
				Arm J1:10 Left	Inf	41.1 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	43.1 %	1890	1890
				Arm J1:9 Left	Inf	56.9 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	40.3 %	2015	2015
				Arm J1:10 Right	Inf	59.7 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	95.3 %	1807	1807
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	4.7 %		
				Arm J3:5 Left	14.00	47.4 %		
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:7 Ahead	Inf	25.6 %	1909	1909
J3:4/1 (Springfield Glen)				Arm J3:8 Right	20.00	26.9 %		
J3:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 14: 'PM Opening Year + 15 Years With Development Flows' (FG14: 'PM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination							
		A	B	C	D	E	F	G	Tot.
Origin	A	0	63	28	0	1	50	19	161
	B	54	0	8	0	0	20	7	89
	C	9	4	0	0	13	494	214	734
	D	0	0	0	0	0	0	0	0
	E	3	2	17	0	0	7	7	36
	F	106	65	541	0	20	0	65	797
	G	59	36	321	0	13	122	0	551
	Tot.	231	170	915	0	47	693	312	2368

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 14: PM Opening Year + 15 Years With Development Flows
Junction: J1: Academy Street/Dublin Road	
J1:1/1	1150
J1:2/1	734
J1:3/1	133
J1:4/1	818
J1:5/1	915
J1:6/1	284
J1:7/1	89
J1:8/1	161
J1:9/1	231
J1:10/1	170
Junction: J2: Unnamed Junction	
J2:1/1	818
J2:2/1	1150
J2:3/1	0
J2:4/1	1150
J2:5/1	818
J2:6/1	0
Junction: J3: Dublin Road/Bothar Sion/Springfield Glen	
J3:1/1 (with short)	797(In) 732(Out)
J3:1/2 (short)	65
J3:2/1 (with short)	818(In) 804(Out)
J3:2/2 (short)	14
J3:3/1 (short)	122
J3:3/2 (with short)	551(In) 429(Out)
J3:4/1	36
J3:5/1	229
J3:5/2	921
J3:6/1	47
J3:7/1	312
J3:8/1	407
J3:8/2	286

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Academy Street/Dublin Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	76.4 %	1898	1898
				Arm J1:6 Left	16.00	23.6 %		
J1:2/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J1:4 Ahead	Inf	98.2 %	1937	1937
				Arm J1:6 Right	19.00	1.8 %		
J1:3/1 (Academy Street)	5.00	0.00	Y	Arm J1:4 Right	22.00	72.9 %	1972	1972
				Arm J1:5 Left	18.00	27.1 %		
J1:4/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Dublin Road Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Academy Street)	5.00	0.00	Y	Arm J1:9 Right	Inf	62.3 %	2115	2115
				Arm J1:10 Left	Inf	37.7 %		
J1:7/1 (Primary Access)	2.75	0.00	Y	Arm J1:3 Right	Inf	39.3 %	1890	1890
				Arm J1:9 Left	Inf	60.7 %		
J1:8/1 (Academy Street)	4.00	0.00	Y	Arm J1:3 Left	Inf	60.9 %	2015	2015
				Arm J1:10 Right	Inf	39.1 %		
J1:9/1 (Academy Street)	4.00	0.00	Y				2015	2015
J1:10/1 (Primary Access)	2.75	0.00	Y				1890	1890

Full Input Data And Results

Junction: J2: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Dublin Road Southbound)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Right	Inf	0.0 %		
J2:2/1 (Dublin Road Northbound)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
				Arm J2:6 Left	Inf	0.0 %		
J2:3/1 (Local Access)	3.25	0.00	Y	Arm J2:4 Left	Inf	0.0 %	1940	1940
J2:4/1 (Dublin Road Northbound Lane 1)				Arm J2:5 Right	Inf	0.0 %		
J2:5/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Local Access Lane 1)	Infinite Saturation Flow						Inf	Inf

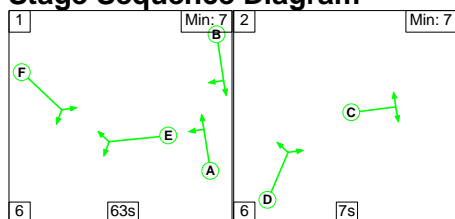
Full Input Data And Results

Junction: J3: Dublin Road/Bothar Sion/Springfield Glen											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
J3:1/1 (Dublin Road Northbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500			
J3:1/2 (Dublin Road Northbound)	3.50	0.00	Y	Arm J3:7 Right	Inf	100.0 %	1965	1965			
J3:2/1 (Dublin Road Southbound Lane 1)	This lane uses a directly entered Saturation Flow						3500	3500			
J3:2/2 (Dublin Road Southbound)	3.60	0.00	Y	Arm J3:6 Right	16.50	100.0 %	1810	1810			
J3:3/1 (Bothar Sion)	3.40	0.00	Y	Arm J3:8 Left	10.00	100.0 %	1700	1700			
J3:3/2 (Bothar Sion)	3.40	0.00	Y	Arm J3:5 Right	17.50	97.0 %	1805	1805			
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:6 Ahead	Inf	3.0 %					
				Arm J3:5 Left	14.00	61.1 %					
				Arm J3:7 Ahead	Inf	19.4 %					
J3:4/1 (Springfield Glen)	4.30	0.00	Y	Arm J3:8 Right	20.00	19.4 %	1893	1893			
J3:5/1 (Dublin Road Northbound Lane 1)				Infinite Saturation Flow						Inf	Inf
J3:5/2 (Dublin Road Northbound Lane 2)				Infinite Saturation Flow						Inf	Inf
J3:6/1 (Springfield Glen Lane 1)	Infinite Saturation Flow						Inf	Inf			
J3:7/1 (Bothar Sion Lane 1)	Infinite Saturation Flow						Inf	Inf			
J3:8/1 (Dublin Road Southbound Lane 1)	Infinite Saturation Flow						Inf	Inf			
J3:8/2 (Dublin Road Southbound Lane 2)	Infinite Saturation Flow						Inf	Inf			

Scenario 1: 'AM Base Model' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

C1

Stage Sequence Diagram

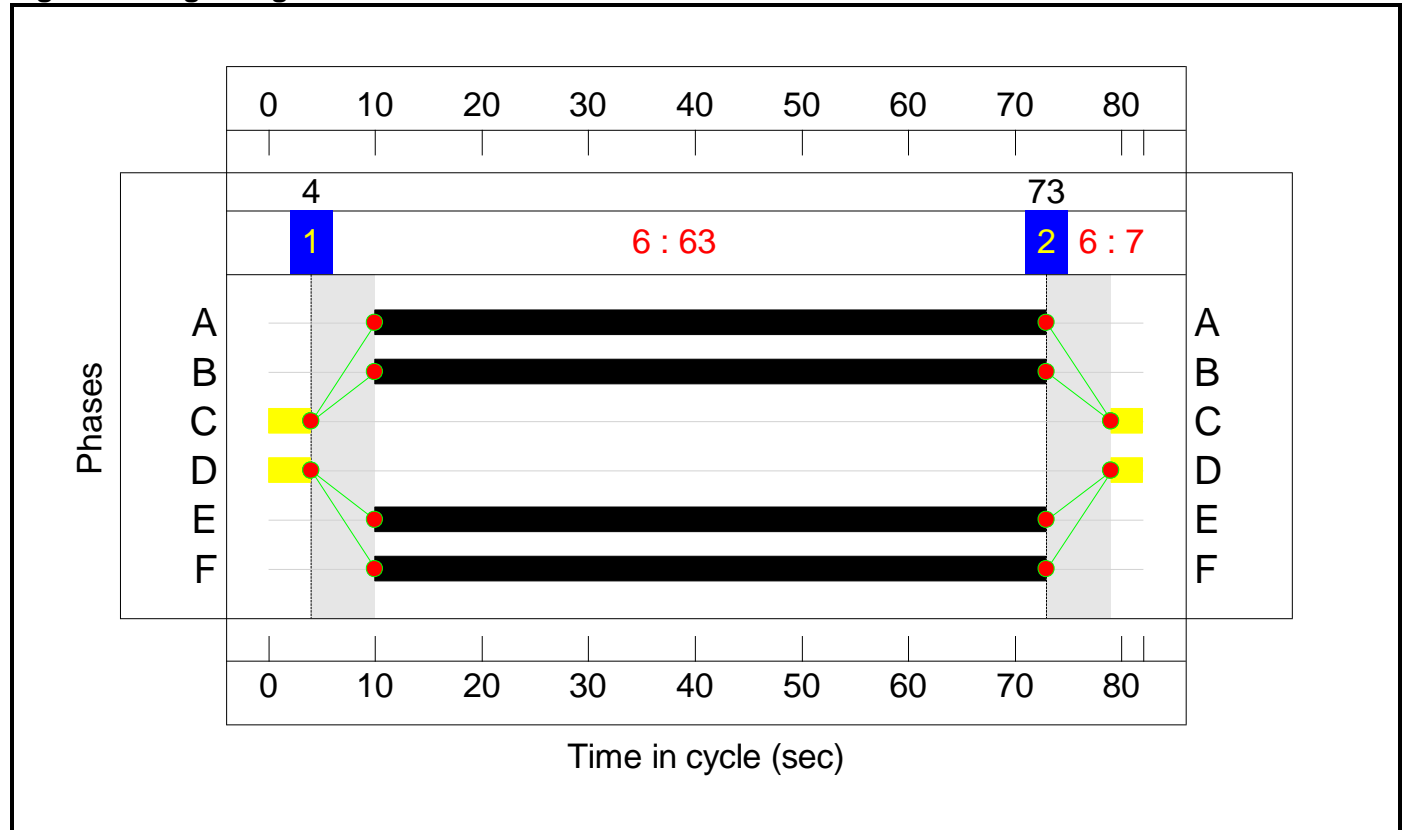


Full Input Data And Results

Stage Timings

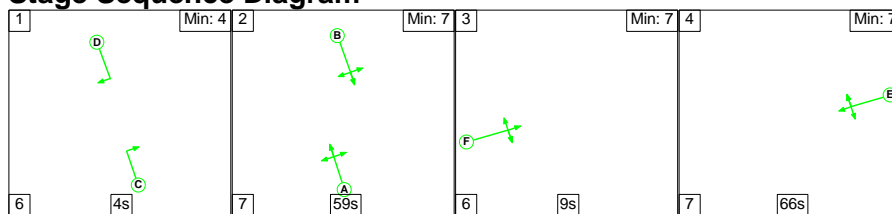
Stage	1	2
Duration	63	7
Change Point	4	73

Signal Timings Diagram



C2

Stage Sequence Diagram

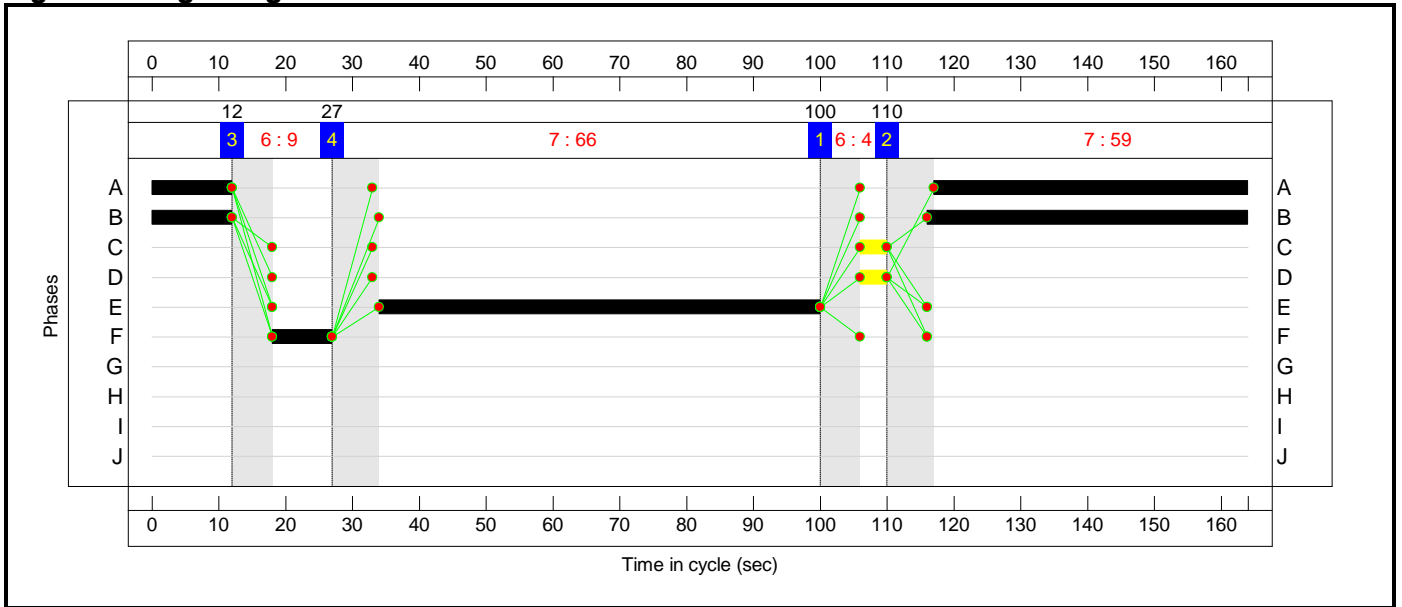


Stage Timings

Stage	1	2	3	4
Duration	4	59	9	66
Change Point	100	110	12	27

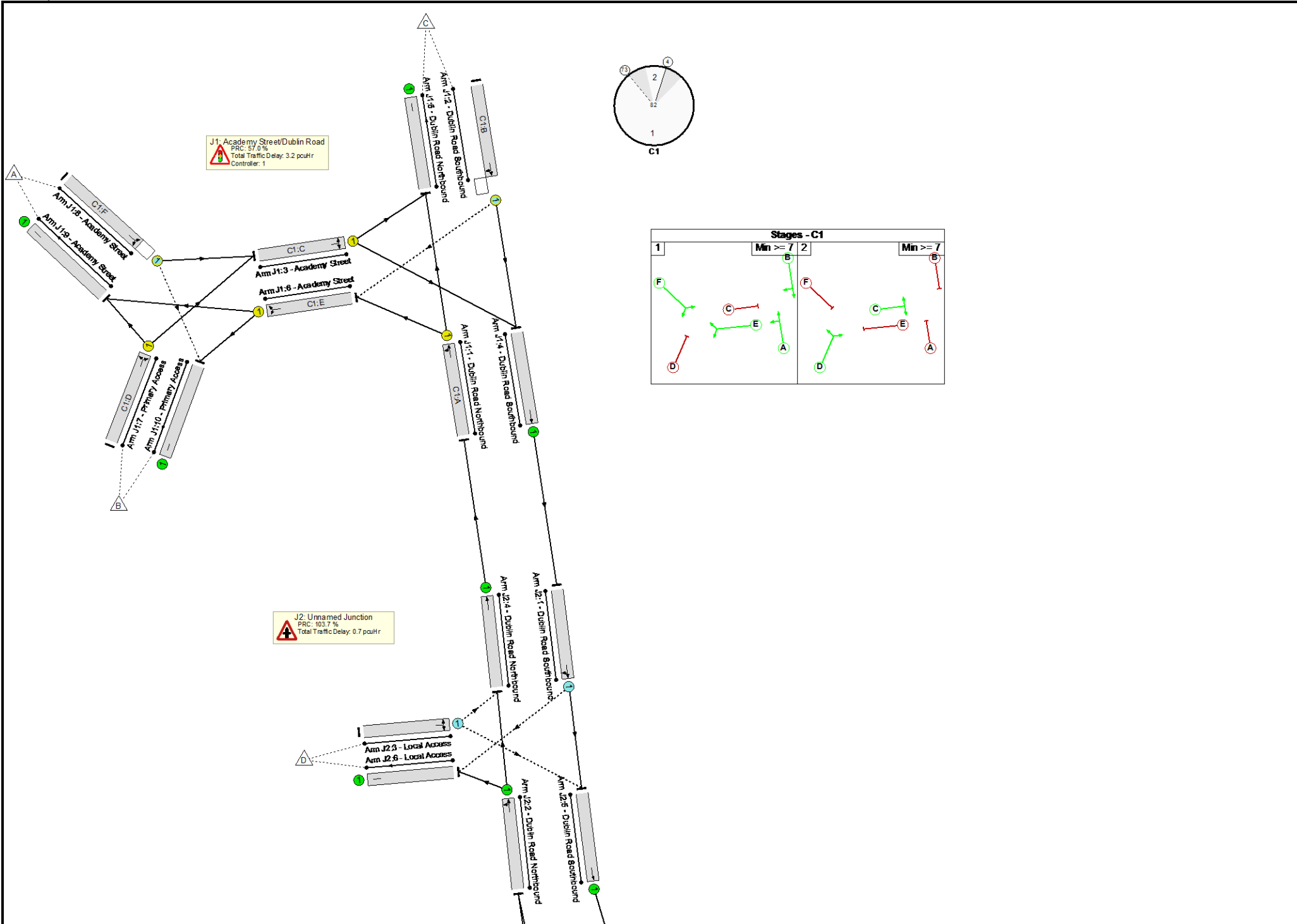
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.3%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	57.3%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	857	1916	1495	57.3%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	704	1938	1513	46.5%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	41	1970	192	21.3%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	724	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	757	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	121	2115	1651	7.3%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	41	2015	1573	2.6%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	121	2015	2015	6.0%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	44.2%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	724	1940	1940	37.3%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	857	1940	1940	44.2%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	376	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	857	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	724	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	56.8%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	59:63	4	583	3500:1965	1170	49.8%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	60:64	4	724	3500:1810	1286	56.3%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	66	-	424	1808:1700	747	56.8%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	9	-	62	1914	117	53.1%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	193	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	664	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	36	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	332	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	320	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	248	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	-	-	88	9	0	22.2	4.4	0.3	26.9	-	-	-	-
J1: Academy Street/Dublin Road	-	-	7	0	0	1.9	1.3	0.0	3.2	-	-	-	-
1/1	857	857	-	-	-	0.9	0.7	-	1.5	6.4	7.6	0.7	8.3
2/1	704	704	7	0	0	0.6	0.4	0.0	1.0	5.4	5.5	0.4	5.9
3/1	41	41	-	-	-	0.4	0.1	-	0.5	44.2	0.9	0.1	1.0
4/1	724	724	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	757	757	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	121	121	-	-	-	0.0	0.0	-	0.1	2.0	0.1	0.0	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	41	41	0	0	0	0.0	0.0	0.0	0.0	3.3	0.2	0.0	0.2
9/1	121	121	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.7	0.0	0.7	-	-	-	-
1/1	724	724	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	857	857	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	724	724	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	81	9	0	20.3	2.3	0.3	23.0	-	-	-	-
1/1+1/2	583	583	71	8	0	6.5	0.5	0.3	7.3	44.9	20.1	0.5	20.6
2/1+2/2	724	724	10	1	0	8.2	0.6	0.0	8.9	44.1	26.1	0.6	26.8
3/2+3/1	424	424	-	-	-	4.3	0.7	-	5.0	42.1	14.4	0.7	15.0
4/1	62	62	-	-	-	1.3	0.6	-	1.8	107.0	2.7	0.6	3.3

Full Input Data And Results

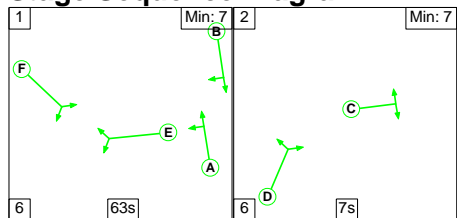
5/1	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	36	36	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;"></td> <td style="width: 10%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">57.0</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">3.18</td> <td style="width: 15%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>58.5</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>22.96</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>57.0</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>26.86</td> <td></td> <td></td> </tr> </tbody> </table>															C1	PRC for Signalled Lanes (%):	57.0	Total Delay for Signalled Lanes (pcuHr):	3.18	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	58.5	Total Delay for Signalled Lanes (pcuHr):	22.96	Cycle Time (s):	164			PRC Over All Lanes (%):	57.0	Total Delay Over All Lanes(pcuHr):	26.86		
	C1	PRC for Signalled Lanes (%):	57.0	Total Delay for Signalled Lanes (pcuHr):	3.18	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	58.5	Total Delay for Signalled Lanes (pcuHr):	22.96	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	57.0	Total Delay Over All Lanes(pcuHr):	26.86																																

Full Input Data And Results

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

C1

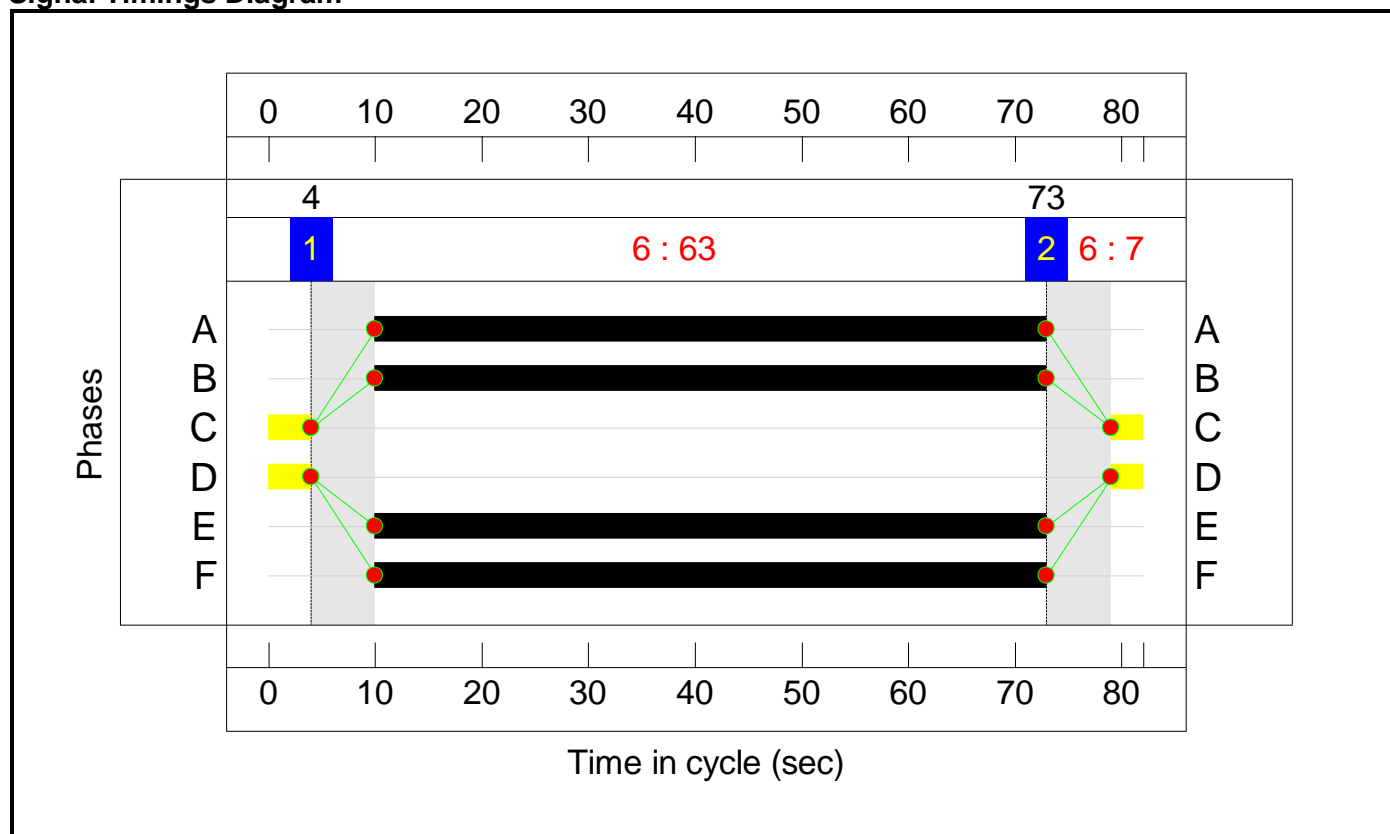
Stage Sequence Diagram



Stage Timings

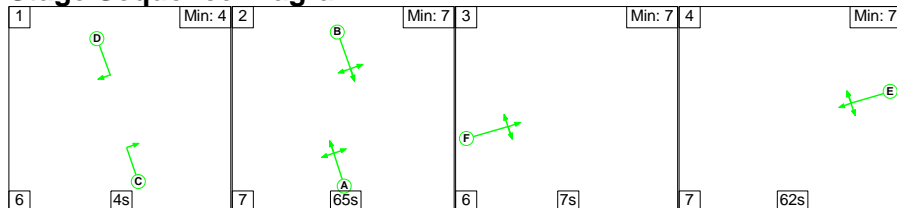
Stage	1	2
Duration	63	7
Change Point	4	73

Signal Timings Diagram



C2

Stage Sequence Diagram

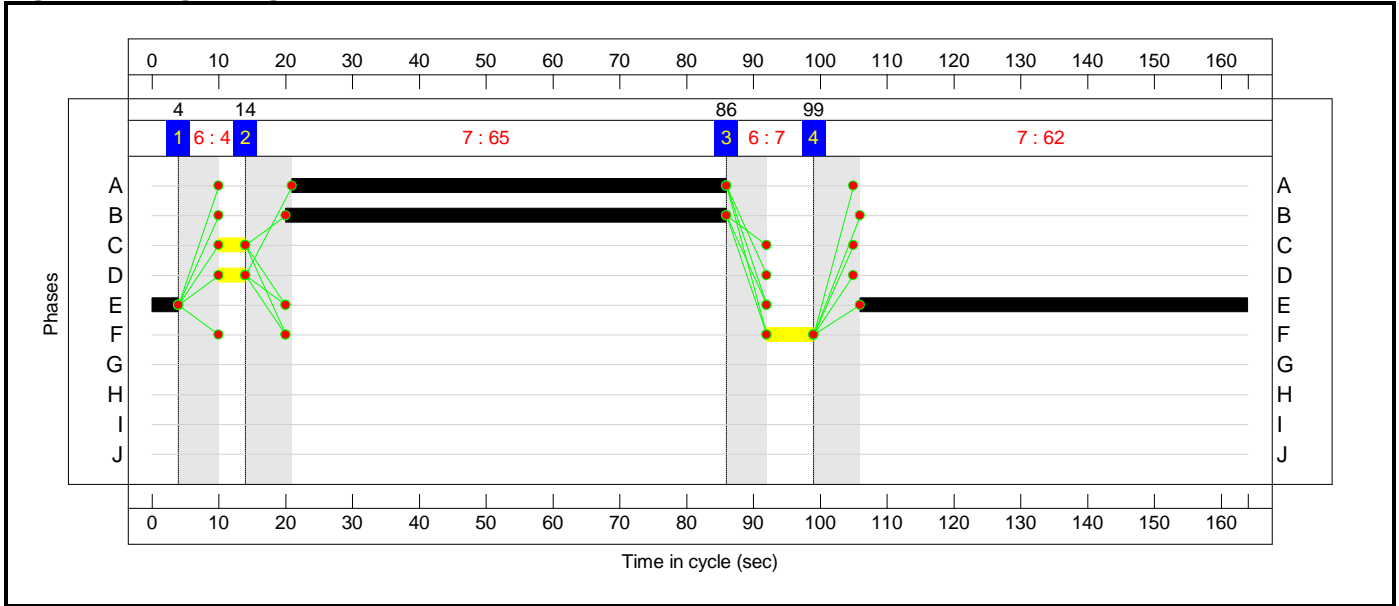


Full Input Data And Results

Stage Timings

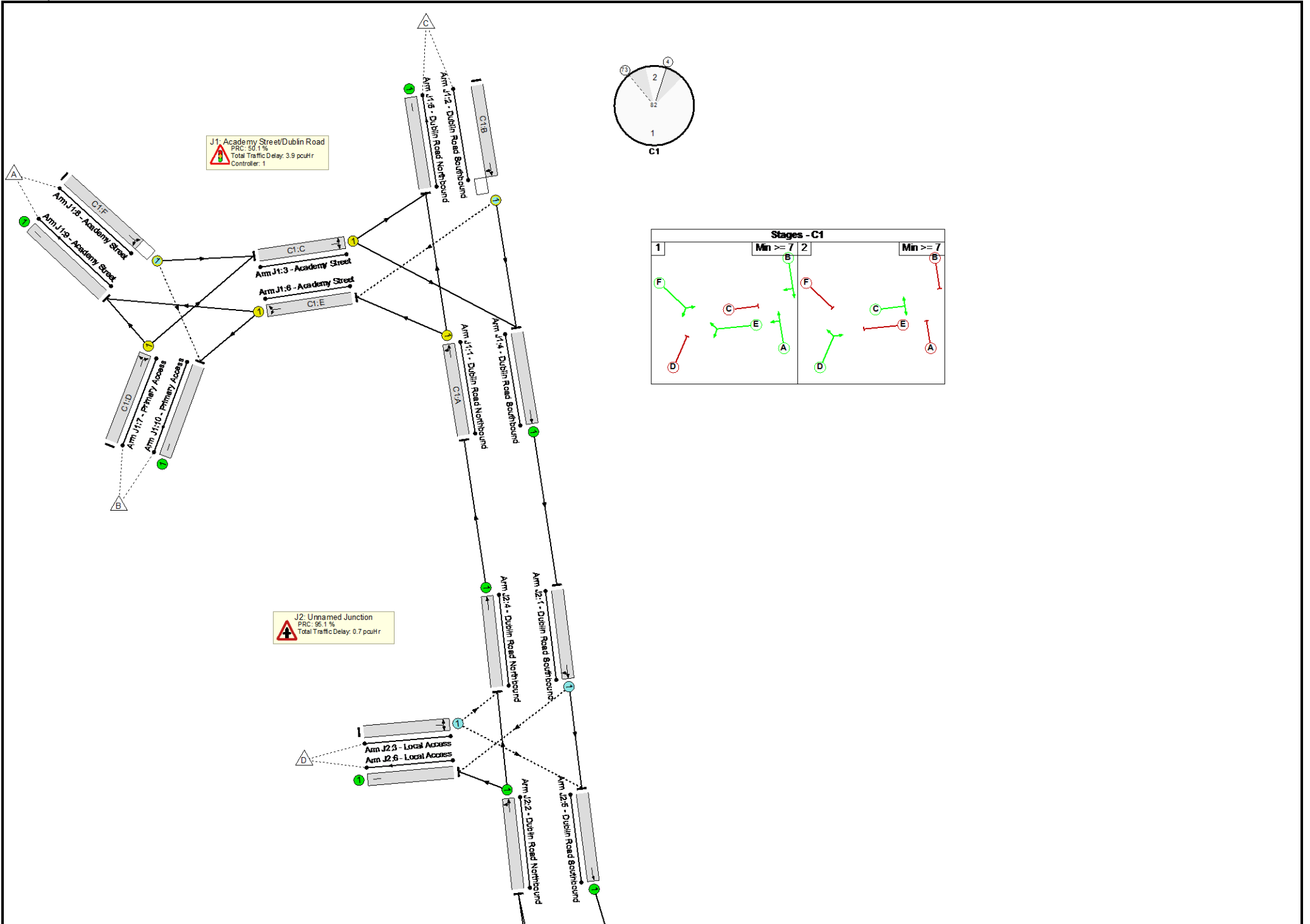
Stage	1	2	3	4
Duration	4	65	7	62
Change Point	4	14	86	99

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	60.0%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	60.0%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	895	1912	1492	60.0%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	636	1937	1512	42.1%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	84	1970	192	43.7%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	784	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	153	2115	1651	9.3%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	84	2015	1573	5.3%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	153	2015	2015	7.6%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	46.1%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	678	1940	1940	34.9%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	895	1940	1940	46.1%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	376	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	895	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	678	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	59.7%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	65:69	4	642	3500:1965	1325	48.4%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	66:70	4	678	3500:1810	1409	48.1%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	62	-	420	1805:1700	704	59.7%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	29	1896	92	31.4%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	171	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	724	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	39	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	259	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	338	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	238	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	6	0	20.7	4.2	0.2	25.0	-	-	-	-
J1: Academy Street/Dublin Road	-	-	11	0	0	2.3	1.6	0.0	3.9	-	-	-	-
1/1	895	895	-	-	-	0.9	0.7	-	1.7	6.7	8.2	0.7	9.0
2/1	636	636	11	0	0	0.5	0.4	0.0	0.9	5.1	4.6	0.4	5.0
3/1	84	84	-	-	-	0.8	0.4	-	1.2	49.6	1.8	0.4	2.2
4/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	784	784	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	153	153	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	84	84	0	0	0	0.0	0.0	0.0	0.1	3.3	0.4	0.0	0.4
9/1	153	153	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.7	0.0	0.7	-	-	-	-
1/1	678	678	0	0	0	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
2/1	895	895	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	895	895	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	63	6	0	18.4	1.9	0.2	20.4	-	-	-	-
1/1+1/2	642	642	52	5	0	6.4	0.5	0.1	7.1	39.5	21.4	0.5	21.9
2/1+2/2	678	678	11	1	0	6.7	0.5	0.0	7.2	38.2	22.6	0.5	23.0
3/2+3/1	420	420	-	-	-	4.6	0.7	-	5.3	45.7	14.5	0.7	15.3
4/1	29	29	-	-	-	0.6	0.2	-	0.8	103.5	1.3	0.2	1.5

Full Input Data And Results

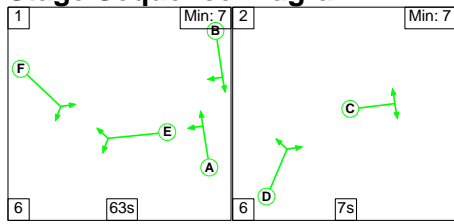
5/1	171	171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	724	724	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	39	39	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>50.1</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>3.89</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>50.8</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>20.41</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>50.1</td> <td>Total Delay Over All Lanes (pcuHr)</td> <td>25.04</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	50.1	Total Delay for Signalled Lanes (pcuHr)	3.89	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	50.8	Total Delay for Signalled Lanes (pcuHr)	20.41	Cycle Time (s)	164		PRC Over All Lanes (%)	50.1	Total Delay Over All Lanes (pcuHr)	25.04		
C1	PRC for Signalled Lanes (%)	50.1	Total Delay for Signalled Lanes (pcuHr)	3.89	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	50.8	Total Delay for Signalled Lanes (pcuHr)	20.41	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	50.1	Total Delay Over All Lanes (pcuHr)	25.04																														

Full Input Data And Results

Scenario 3: 'AM Opening Year Without Development Flows' (FG3: 'AM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

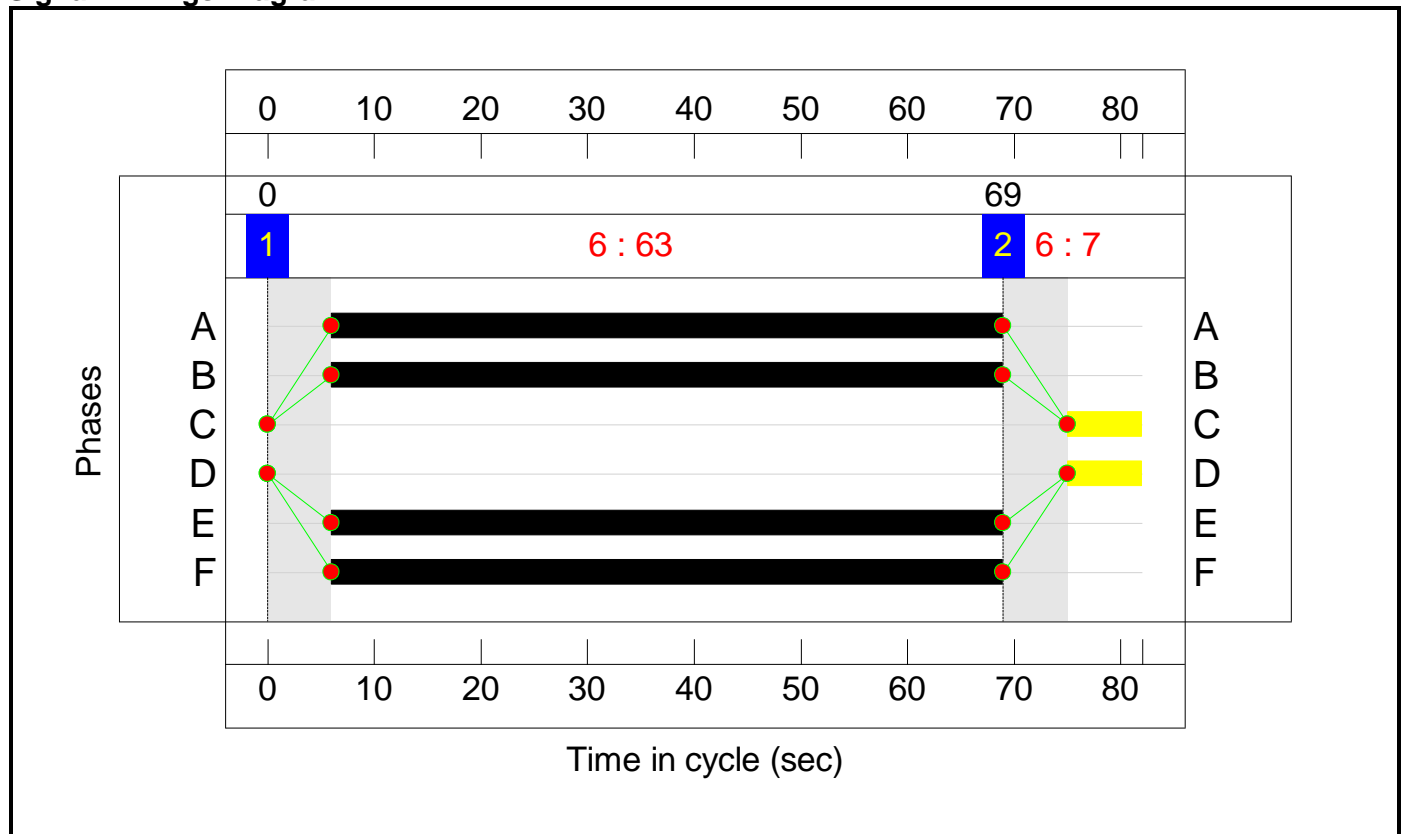
Stage Sequence Diagram



Stage Timings

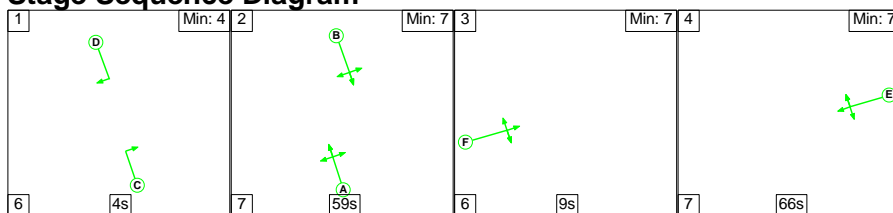
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

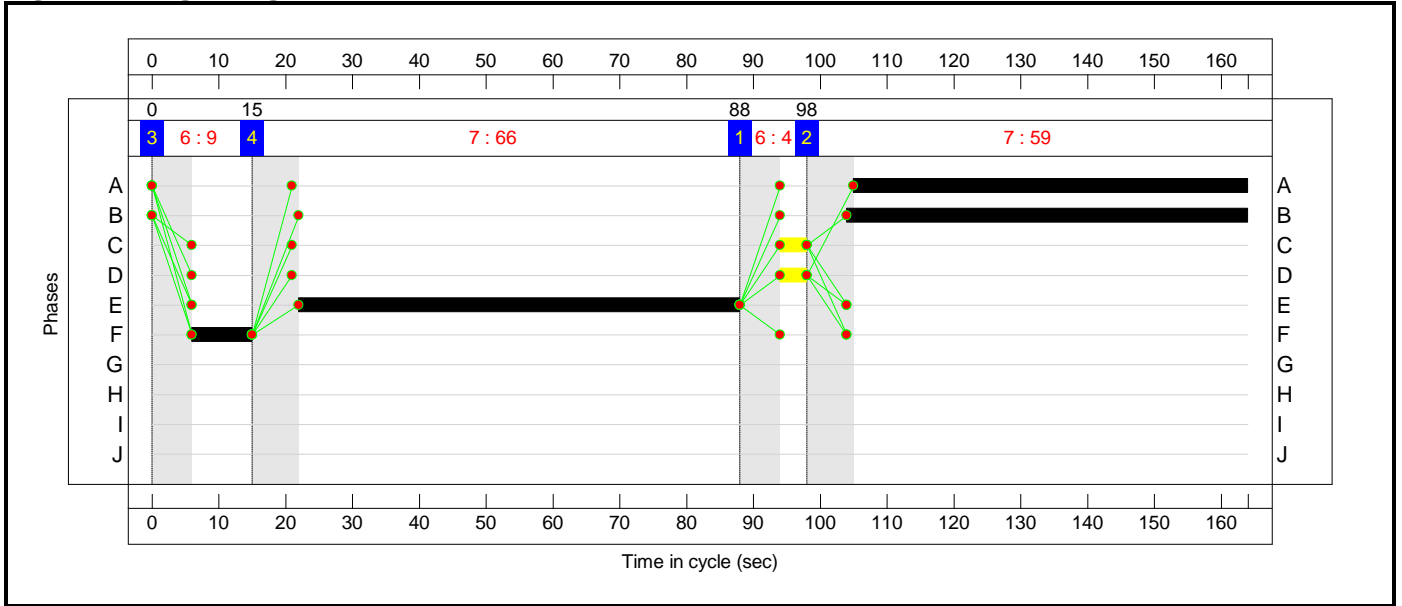


Full Input Data And Results

Stage Timings

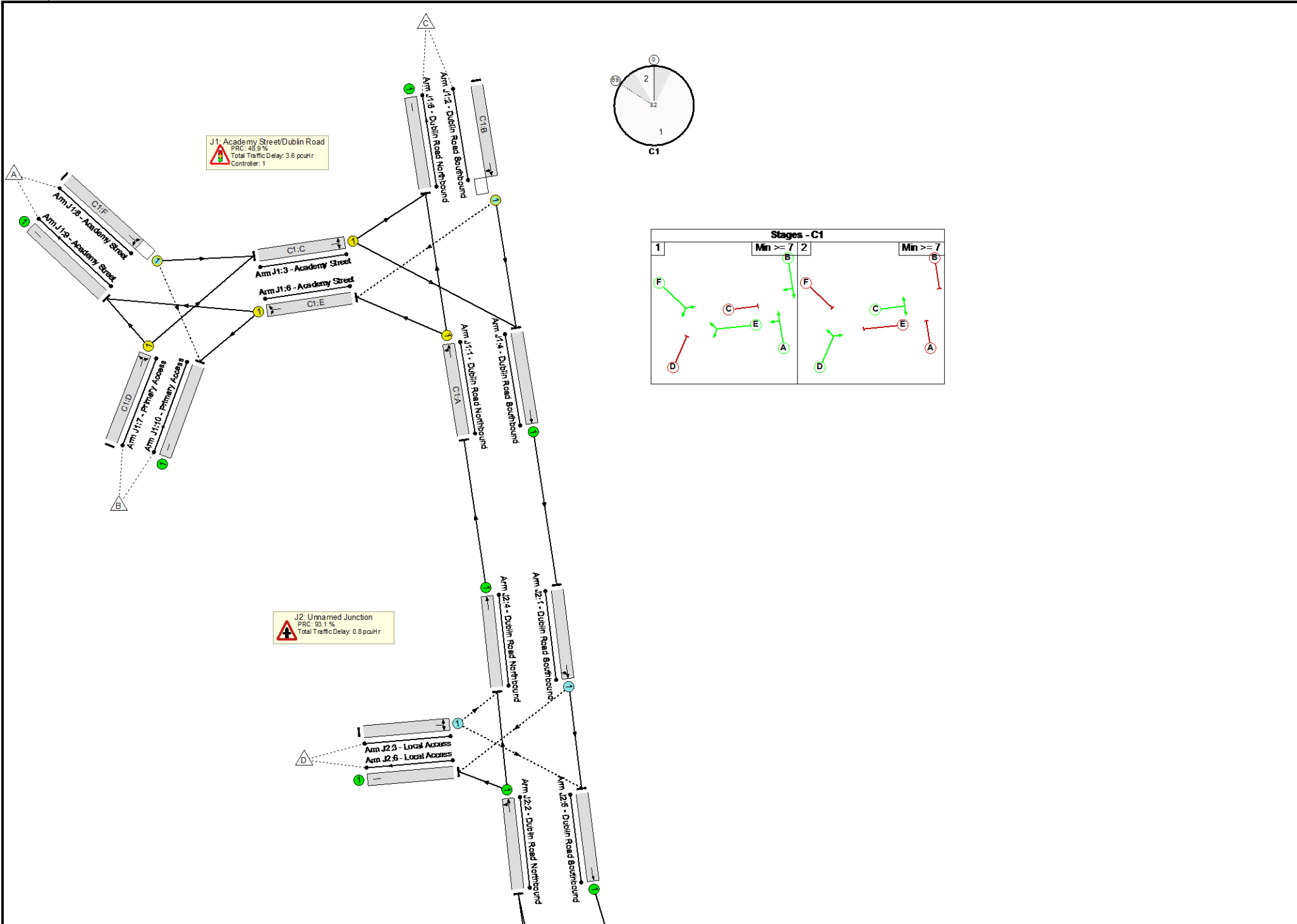
Stage	1	2	3	4
Duration	4	59	9	66
Change Point	88	98	0	15

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	60.5%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	60.5%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	904	1916	1495	60.5%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	747	1939	1513	49.4%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	44	1970	192	22.9%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	127	2115	1651	7.7%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	44	2015	1573	2.8%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	127	2015	2015	6.3%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	46.6%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	769	1940	1940	39.6%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	904	1940	1940	46.6%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	317	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	904	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	769	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	60.3%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	59:63	4	614	3500:1965	1157	53.1%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	60:64	4	769	3500:1810	1286	59.8%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	66	-	450	1808:1700	747	60.3%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	9	-	65	1915	117	55.7%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	205	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	699	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	38	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	359	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	336	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	261	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	-	-	95	9	0	23.9	4.9	0.4	29.2	-	-	-	-
J1: Academy Street/Dublin Road	-	-	7	0	0	2.1	1.5	0.0	3.6	-	-	-	-
1/1	904	904	-	-	-	0.9	0.8	-	1.7	6.8	8.5	0.8	9.3
2/1	747	747	7	0	0	0.7	0.5	0.0	1.2	5.6	6.0	0.5	6.5
3/1	44	44	-	-	-	0.4	0.1	-	0.5	44.5	0.9	0.1	1.1
4/1	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	127	127	-	-	-	0.0	0.0	-	0.1	2.0	0.1	0.0	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	44	44	0	0	0	0.0	0.0	0.0	0.0	3.3	0.2	0.0	0.2
9/1	127	127	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.8	0.0	0.8	-	-	-	-
1/1	769	769	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	904	904	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	904	904	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	88	9	0	21.8	2.7	0.4	24.9	-	-	-	-
1/1+1/2	614	614	77	8	0	7.0	0.6	0.3	7.9	46.0	21.5	0.6	22.1
2/1+2/2	769	769	11	1	0	8.9	0.7	0.0	9.6	45.1	28.2	0.7	28.9
3/2+3/1	450	450	-	-	-	4.7	0.8	-	5.4	43.3	15.5	0.8	16.3
4/1	65	65	-	-	-	1.4	0.6	-	2.0	108.8	2.9	0.6	3.5

Full Input Data And Results

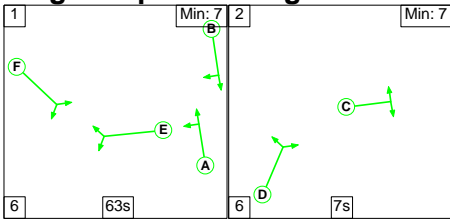
5/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	38	38	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">48.9</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">3.52</td> <td style="width: 20%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>49.3</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>24.87</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>48.9</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>29.19</td> <td></td> <td></td> </tr> </tbody> </table>															C1	PRC for Signalled Lanes (%):	48.9	Total Delay for Signalled Lanes (pcuHr):	3.52	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	49.3	Total Delay for Signalled Lanes (pcuHr):	24.87	Cycle Time (s):	164			PRC Over All Lanes (%):	48.9	Total Delay Over All Lanes(pcuHr):	29.19		
	C1	PRC for Signalled Lanes (%):	48.9	Total Delay for Signalled Lanes (pcuHr):	3.52	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	49.3	Total Delay for Signalled Lanes (pcuHr):	24.87	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	48.9	Total Delay Over All Lanes(pcuHr):	29.19																																

Full Input Data And Results

Scenario 4: 'PM Opening Year Without Development Flows' (FG4: 'PM Opening Year Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

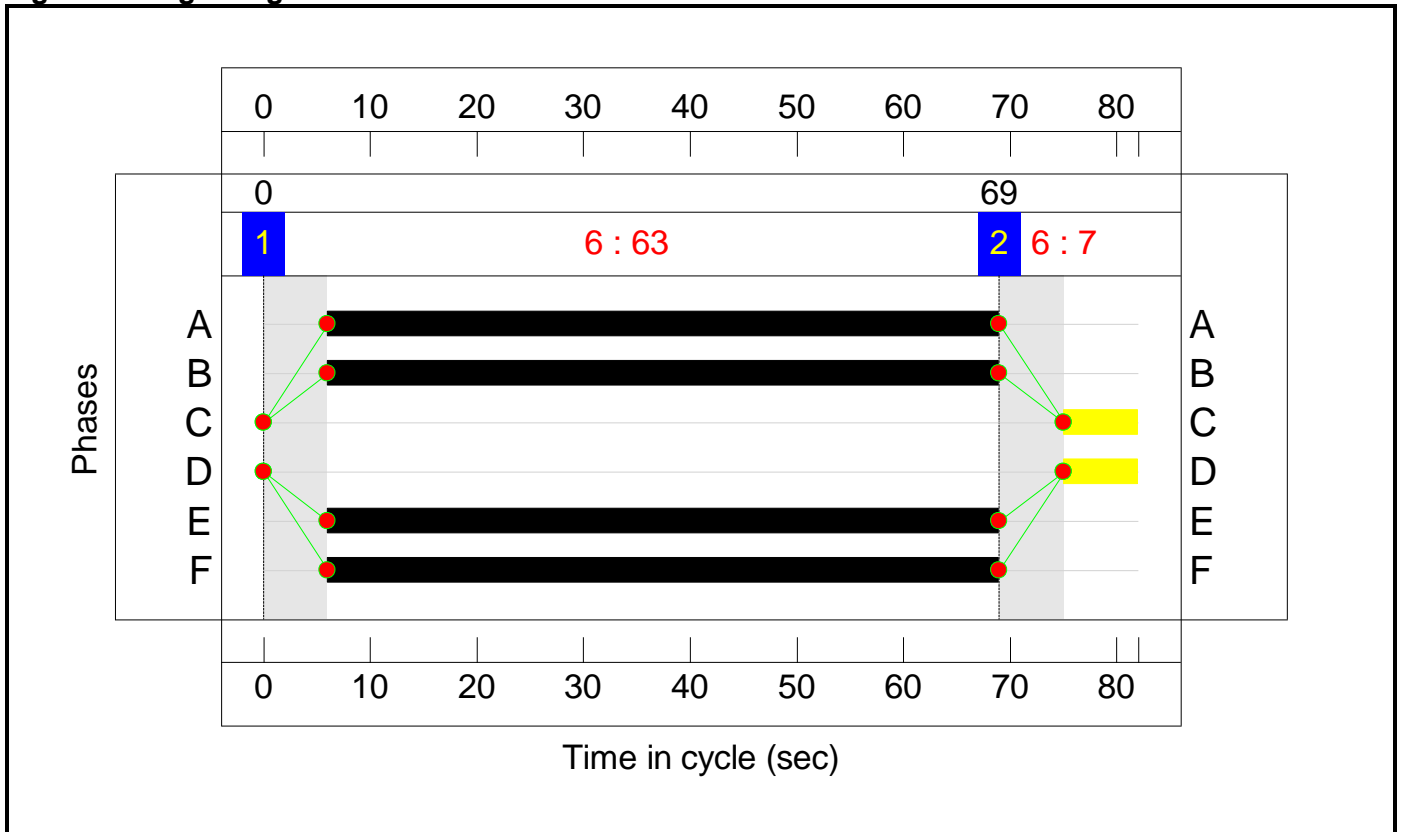
Stage Sequence Diagram



Stage Timings

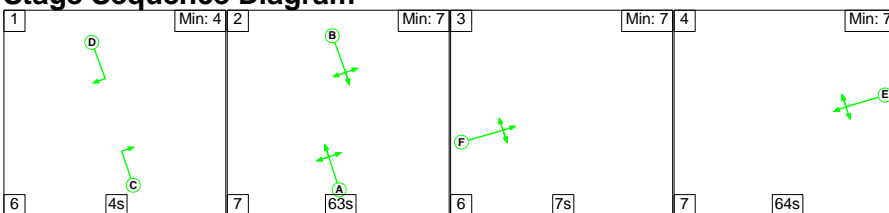
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

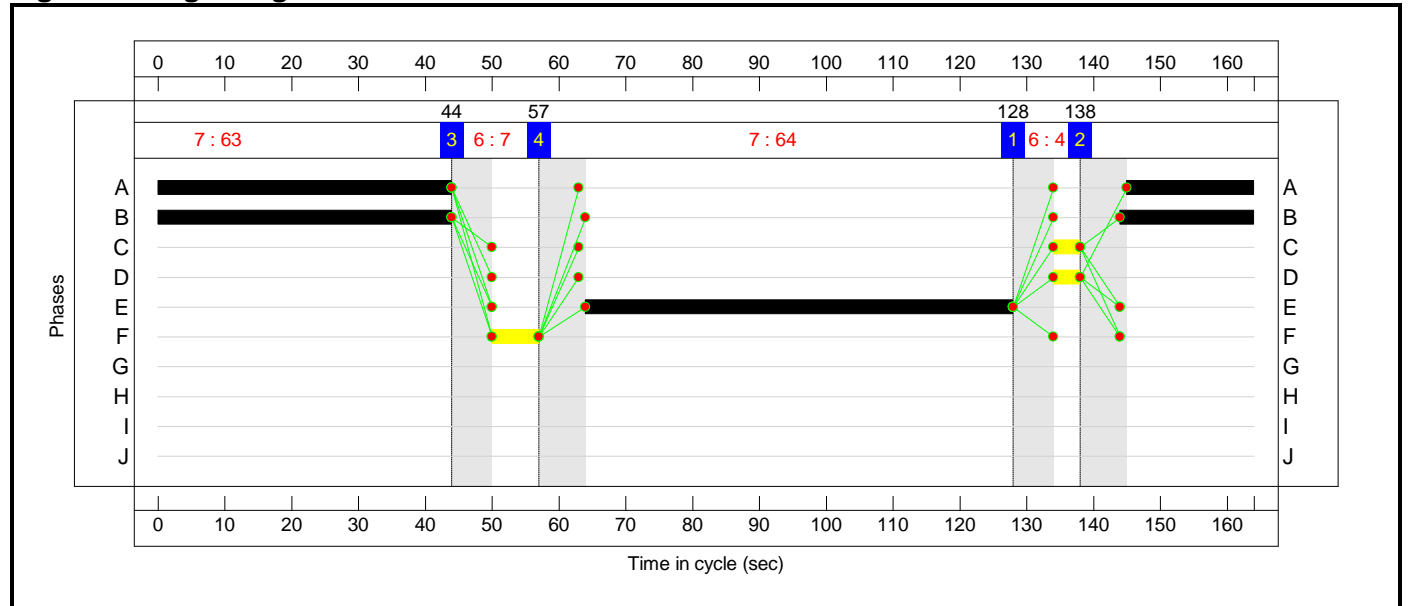


Full Input Data And Results

Stage Timings

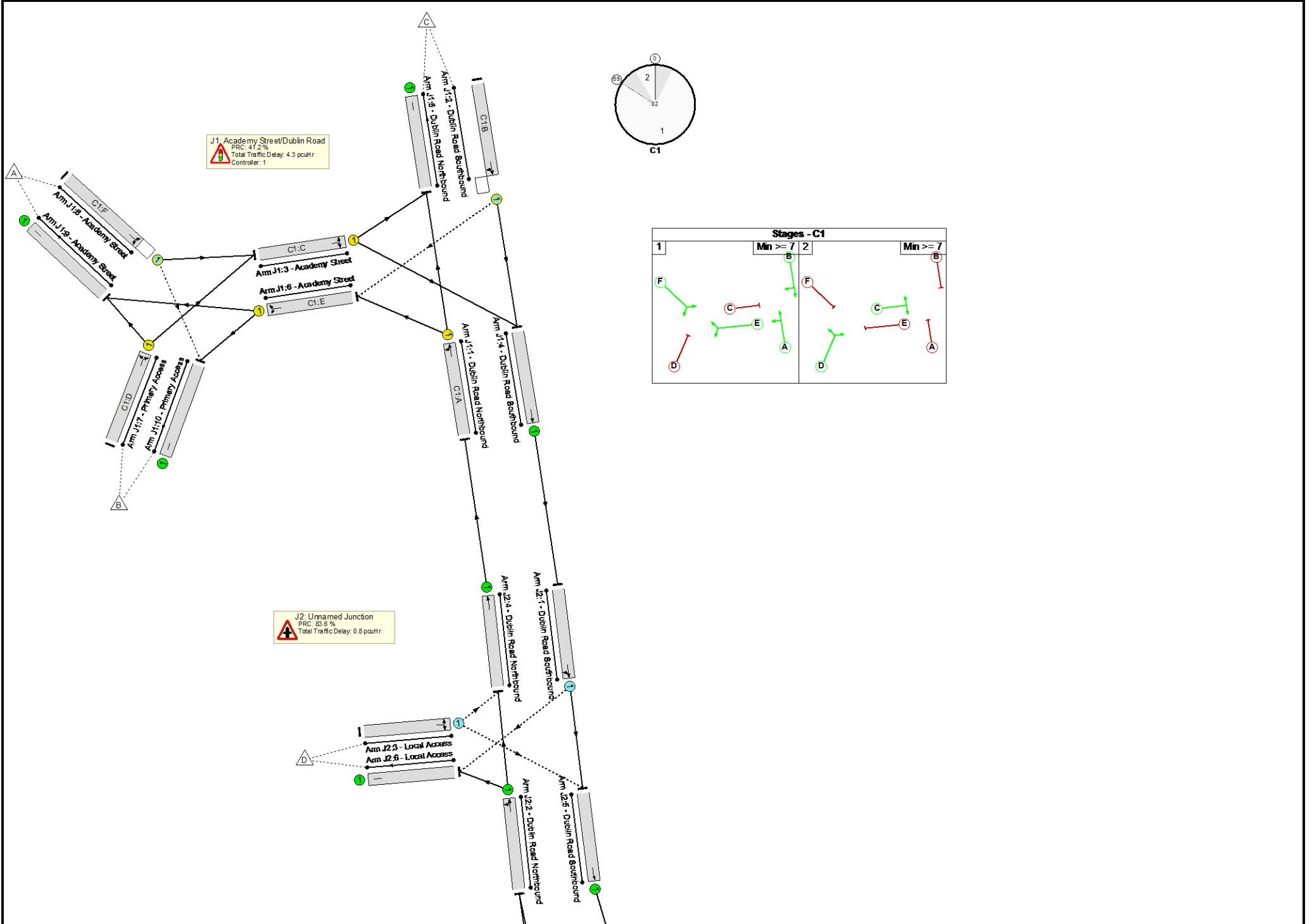
Stage	1	2	3	4
Duration	4	63	7	64
Change Point	128	138	44	57

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	951	1912	1492	63.7%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	671	1937	1512	44.4%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	88	1970	192	45.8%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	715	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	161	2115	1651	9.8%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	88	2015	1573	5.6%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	161	2015	2015	8.0%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	49.0%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	715	1940	1940	36.9%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	951	1940	1940	49.0%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	317	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	951	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	715	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	63.7%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	63:67	4	673	3500:1965	1285	52.4%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	64:68	4	715	3500:1810	1367	52.3%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	64	-	462	1806:1700	726	63.7%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	29	1896	92	31.4%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	186	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	765	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	43	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	275	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	360	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	250	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	-	-	79	6	0	22.7	4.8	0.2	27.7	-	-	-	-
J1: Academy Street/Dublin Road	-	-	12	0	0	2.5	1.8	0.0	4.3	-	-	-	-
1/1	951	951	-	-	-	1.0	0.9	-	1.9	7.2	9.2	0.9	10.1
2/1	671	671	12	0	0	0.6	0.4	0.0	1.0	5.3	5.0	0.4	5.4
3/1	88	88	-	-	-	0.8	0.4	-	1.2	50.3	1.9	0.4	2.3
4/1	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	161	161	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	88	88	0	0	0	0.1	0.0	0.0	0.1	3.3	0.4	0.0	0.5
9/1	161	161	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.8	0.0	0.8	-	-	-	-
1/1	715	715	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	951	951	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	67	6	0	20.2	2.2	0.2	22.6	-	-	-	-
1/1+1/2	673	673	55	5	0	7.1	0.5	0.2	7.8	41.9	23.2	0.5	23.7
2/1+2/2	715	715	12	1	0	7.5	0.5	0.0	8.1	40.5	24.6	0.5	25.1
3/2+3/1	462	462	-	-	-	5.0	0.9	-	5.9	45.7	16.3	0.9	17.1
4/1	29	29	-	-	-	0.6	0.2	-	0.8	103.5	1.3	0.2	1.5

Full Input Data And Results

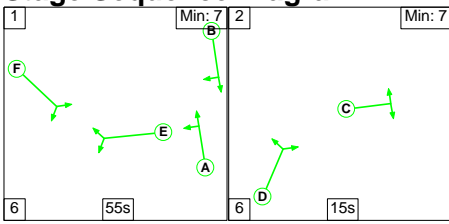
5/1	186	186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	250	250	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>41.2</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>4.29</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>41.4</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>22.60</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>41.2</td> <td>Total Delay Over All Lanes (pcuHr)</td> <td>27.71</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	41.2	Total Delay for Signalled Lanes (pcuHr)	4.29	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	41.4	Total Delay for Signalled Lanes (pcuHr)	22.60	Cycle Time (s)	164		PRC Over All Lanes (%)	41.2	Total Delay Over All Lanes (pcuHr)	27.71		
C1	PRC for Signalled Lanes (%)	41.2	Total Delay for Signalled Lanes (pcuHr)	4.29	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	41.4	Total Delay for Signalled Lanes (pcuHr)	22.60	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	41.2	Total Delay Over All Lanes (pcuHr)	27.71																														

Full Input Data And Results

Scenario 5: 'AM Opening Year With Development Flows' (FG5: 'AM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

C1

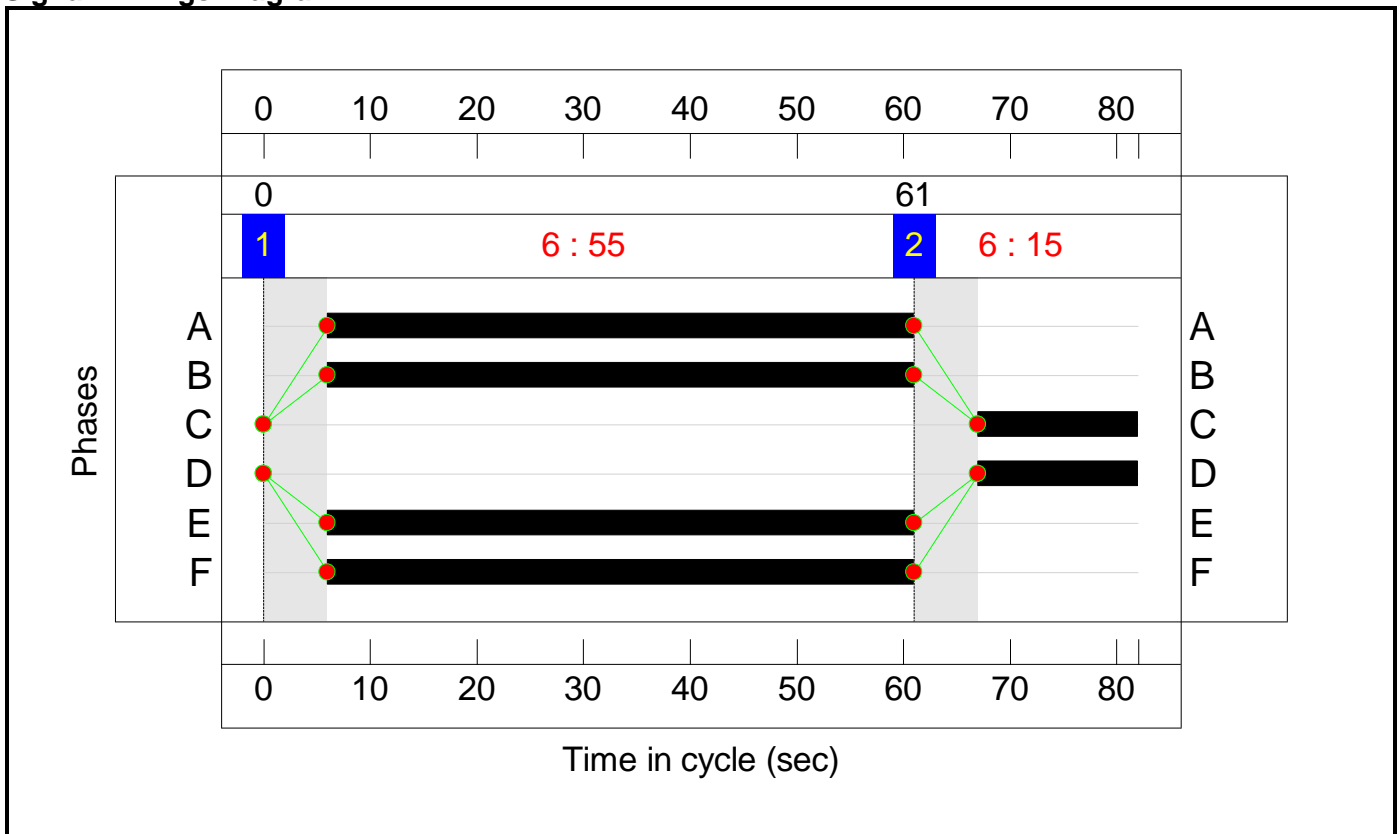
Stage Sequence Diagram



Stage Timings

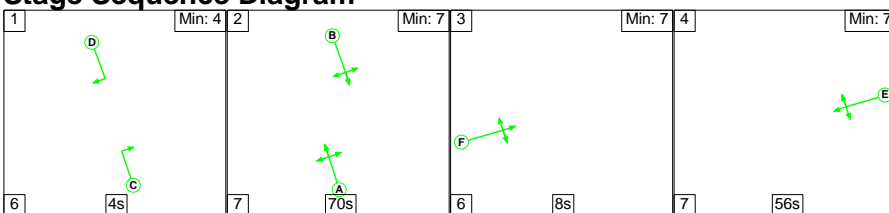
Stage	1	2
Duration	55	15
Change Point	0	61

Signal Timings Diagram



C2

Stage Sequence Diagram

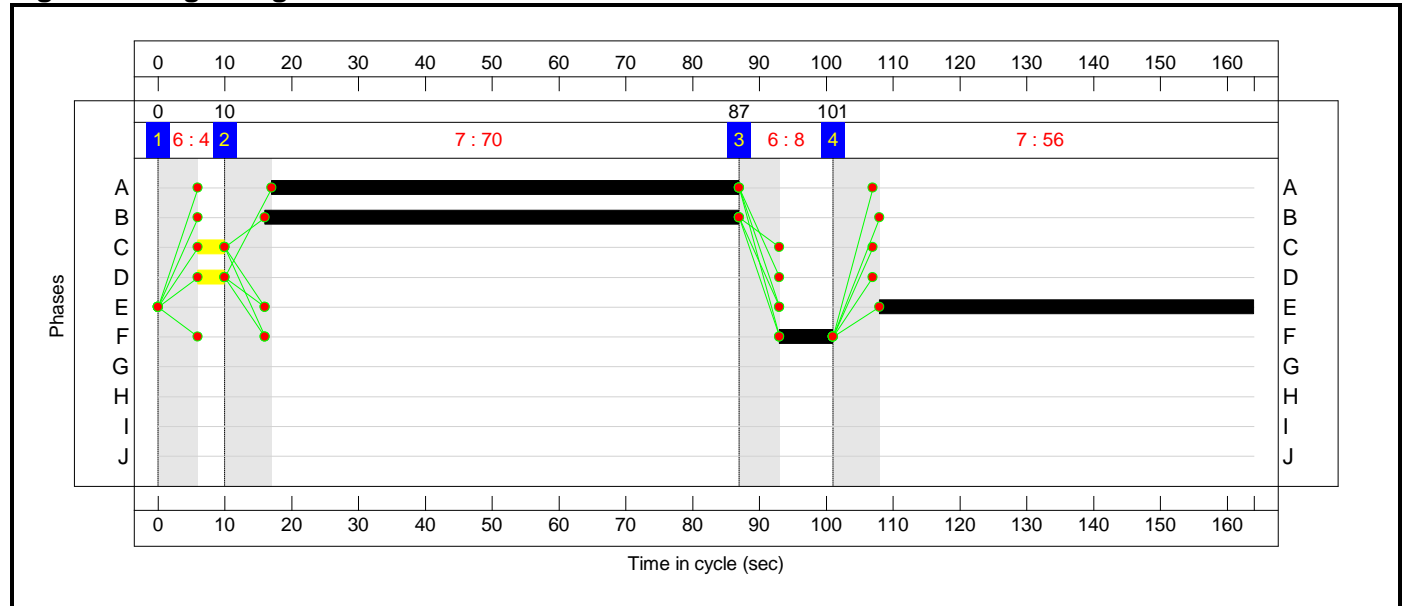


Full Input Data And Results

Stage Timings

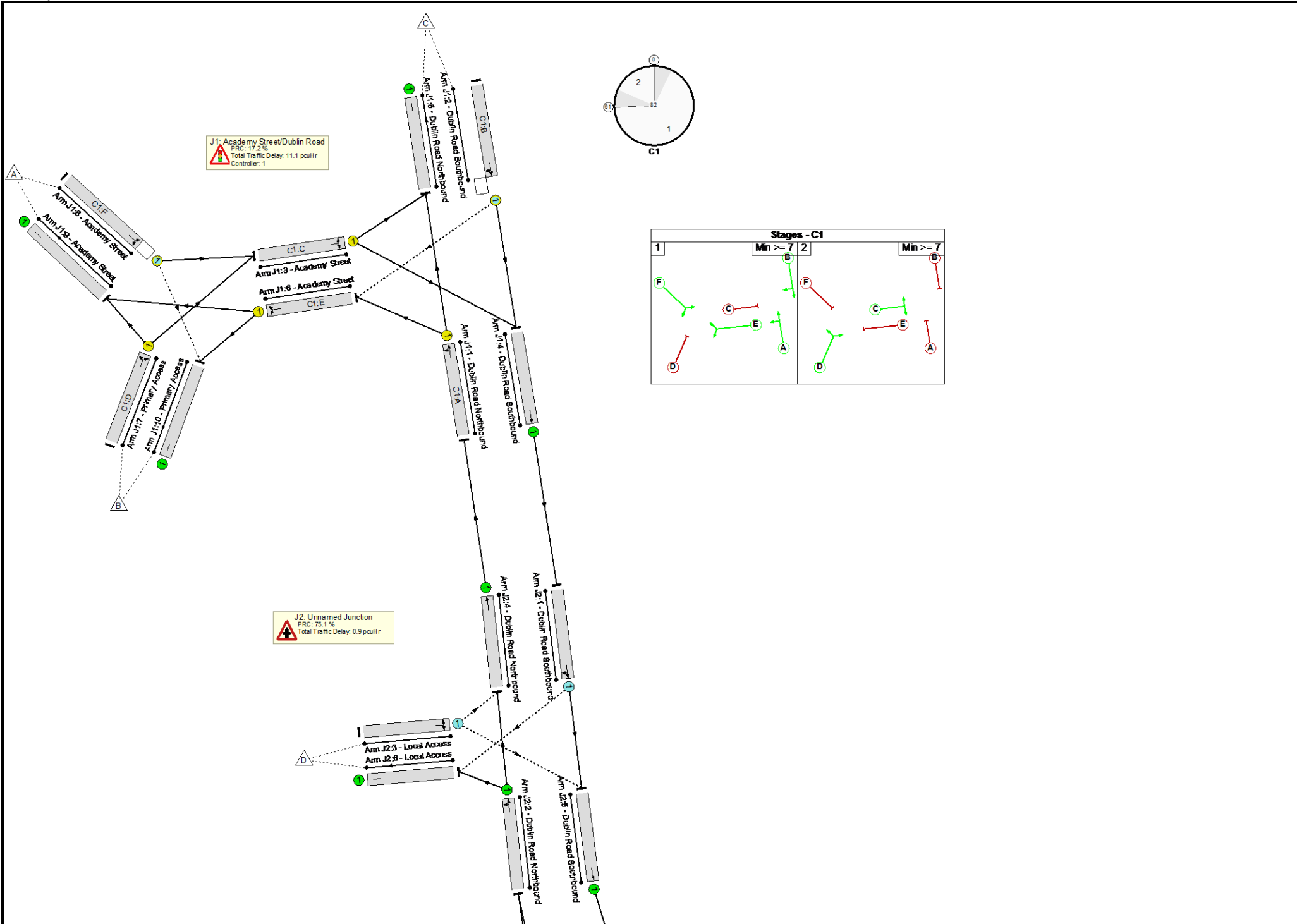
Stage	1	2	3	4
Duration	4	70	8	56
Change Point	0	10	87	101

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	55	-	997	1901	1298	76.8%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	55	-	745	1939	1324	56.3%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	15	-	161	1977	386	41.7%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	881	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	55	-	223	2115	1444	15.4%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	15	-	268	1890	369	72.7%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	55	-	117	2015	950	12.3%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	279	2015	2015	13.8%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	168	1890	1890	8.9%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	51.4%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	881	1940	1940	45.4%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	997	1940	1940	51.4%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	270	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	997	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	881	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	76.6%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	70:74	4	665	3500:1965	1377	48.3%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	71:75	4	881	3500:1810	1514	58.2%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	56	-	488	1807:1700	637	76.6%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	8	-	71	1909	105	67.8%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	229	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	768	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	42	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	400	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	371	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	295	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	-	-	170	9	2	29.3	8.9	0.4	38.7	-	-	-	-
J1: Academy Street/Dublin Road	-	-	76	0	2	6.9	4.2	0.0	11.1	-	-	-	-
1/1	997	997	-	-	-	2.4	1.6	-	4.0	14.6	15.0	1.6	16.6
2/1	745	745	6	0	0	1.4	0.6	0.0	2.0	9.9	8.7	0.6	9.3
3/1	161	161	-	-	-	0.5	0.4	-	0.9	20.3	1.2	0.4	1.5
4/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	223	223	-	-	-	0.1	0.1	-	0.2	2.7	0.3	0.1	0.3
7/1	268	268	-	-	-	2.3	1.3	-	3.6	48.4	5.7	1.3	7.0
8/1	117	117	70	0	2	0.1	0.1	0.0	0.2	6.7	0.9	0.1	0.9
9/1	279	279	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	168	168	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.9	0.0	0.9	-	-	-	-
1/1	881	881	0	0	0	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
2/1	997	997	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	997	997	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	93	9	0	22.4	3.8	0.4	26.6	-	-	-	-
1/1+1/2	665	665	78	8	0	6.1	0.5	0.4	7.0	37.8	21.1	0.5	21.6
2/1+2/2	881	881	15	1	0	8.5	0.7	0.0	9.2	37.5	30.1	0.7	30.8
3/2+3/1	488	488	-	-	-	6.4	1.6	-	8.0	58.7	19.3	1.6	20.9
4/1	71	71	-	-	-	1.5	1.0	-	2.5	126.4	3.2	1.0	4.1

Full Input Data And Results

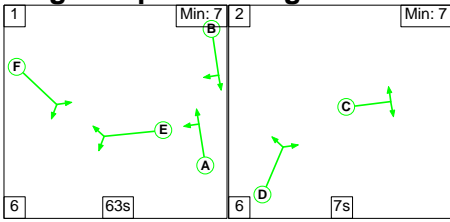
5/1	229	229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	768	768	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	400	400	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>17.2</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>10.98</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>17.5</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>26.61</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>17.2</td> <td>Total Delay Over All Lanes(pcuHr)</td> <td>38.66</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	17.2	Total Delay for Signalled Lanes (pcuHr)	10.98	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	17.5	Total Delay for Signalled Lanes (pcuHr)	26.61	Cycle Time (s)	164		PRC Over All Lanes (%)	17.2	Total Delay Over All Lanes(pcuHr)	38.66		
C1	PRC for Signalled Lanes (%)	17.2	Total Delay for Signalled Lanes (pcuHr)	10.98	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	17.5	Total Delay for Signalled Lanes (pcuHr)	26.61	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	17.2	Total Delay Over All Lanes(pcuHr)	38.66																														

Full Input Data And Results

Scenario 6: 'PM Opening Year With Development Flows' (FG6: 'PM Opening Year With Development Flows', Plan 1: 'Network Control Plan 1')

C1

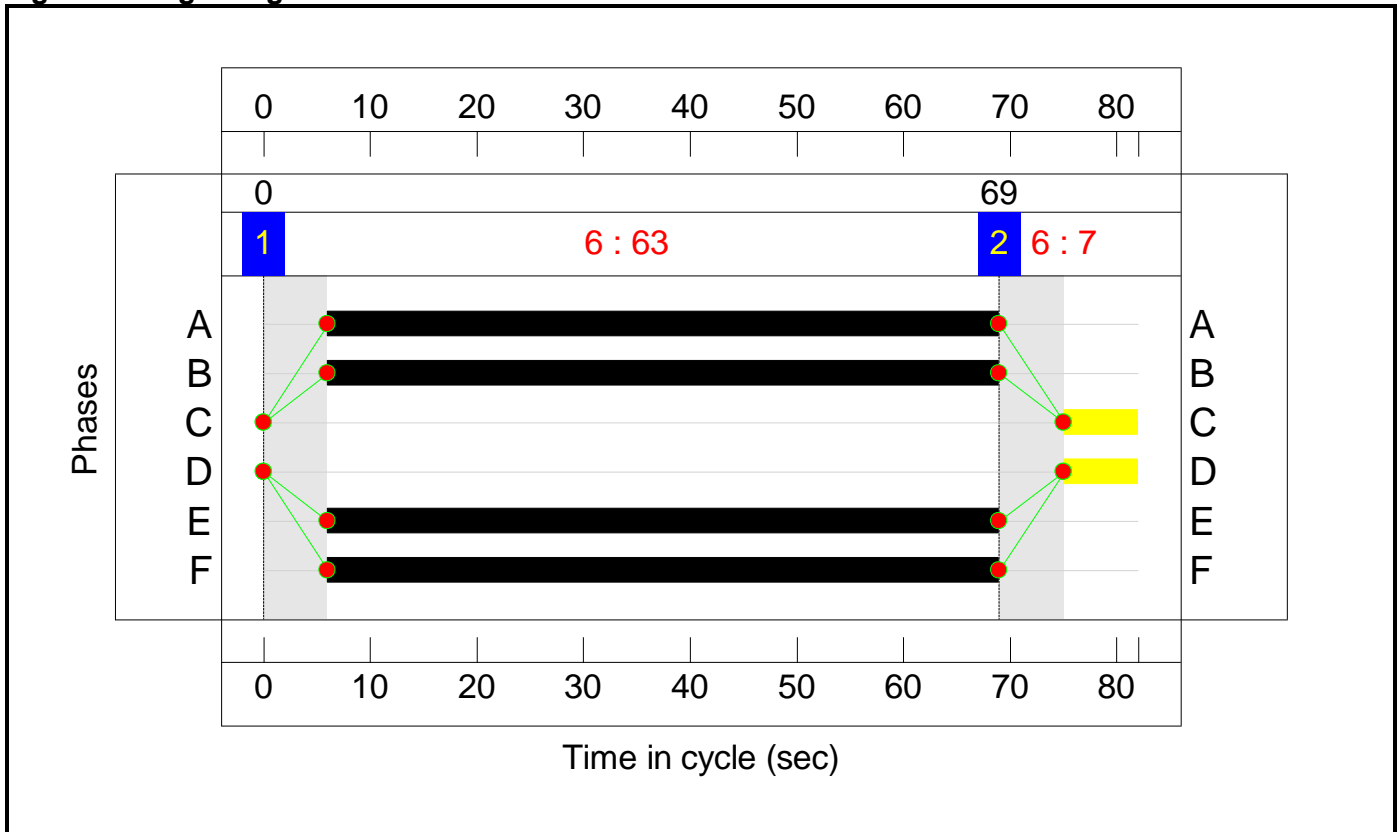
Stage Sequence Diagram



Stage Timings

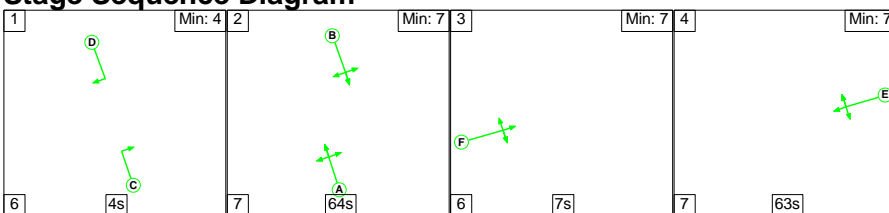
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

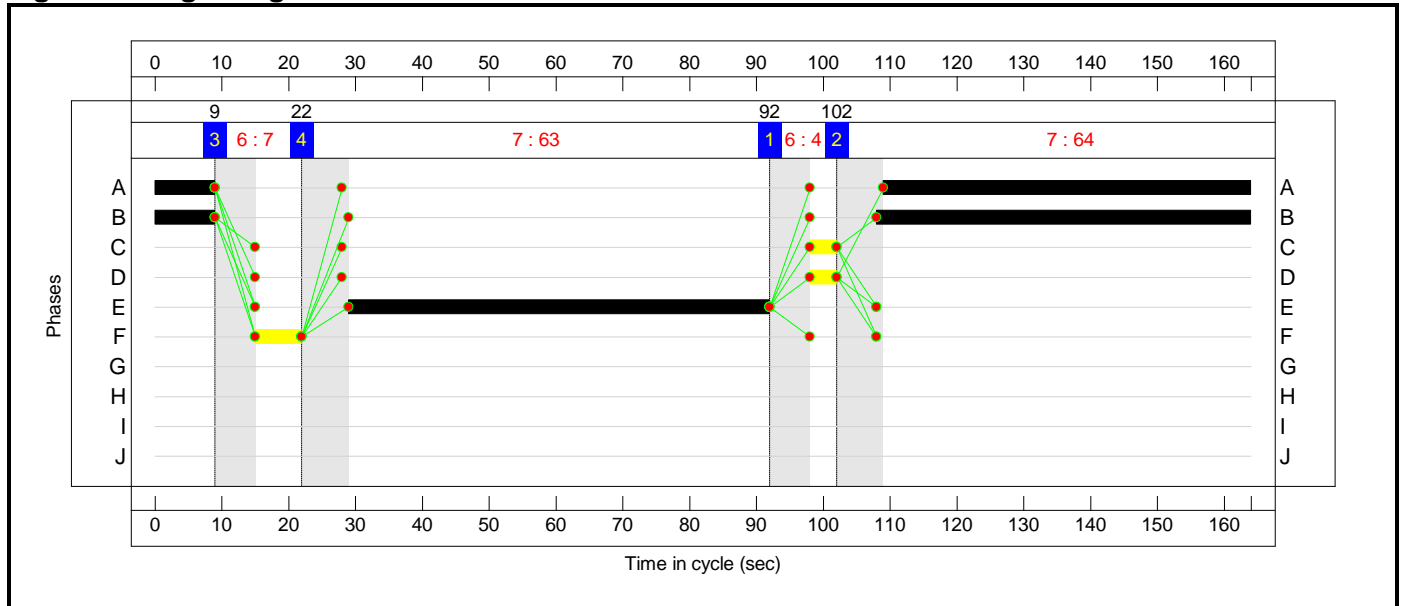


Full Input Data And Results

Stage Timings

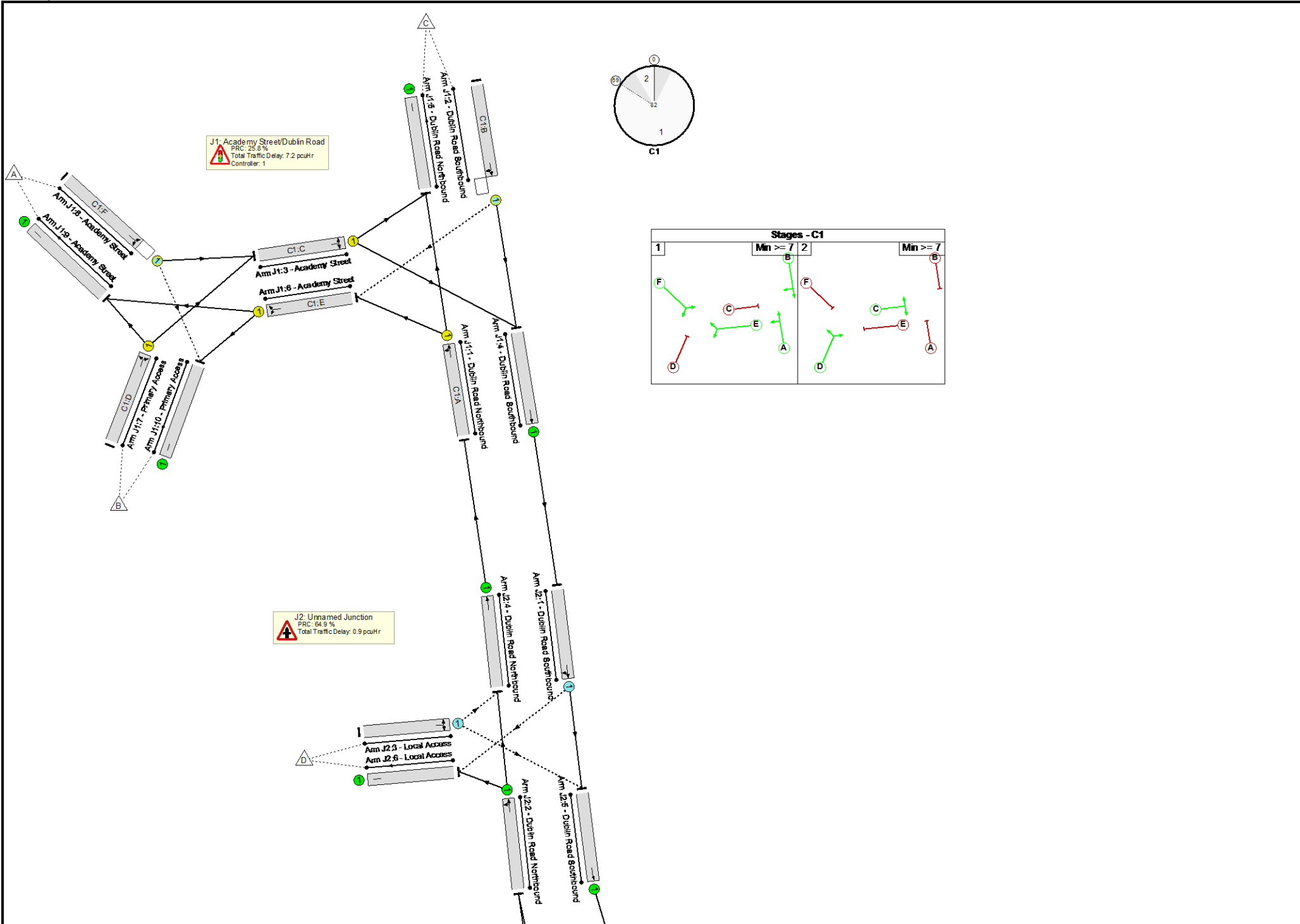
Stage	1	2	3	4
Duration	4	64	7	63
Change Point	92	102	9	22

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	1059	1897	1481	71.5%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	669	1937	1512	44.3%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	123	1972	192	63.9%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	747	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	269	2115	1651	16.3%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	89	1890	184	48.3%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	151	2015	1188	12.7%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	216	2015	2015	10.7%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	170	1890	1890	9.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	54.6%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	747	1940	1940	38.5%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1059	1940	1940	54.6%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	285	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1059	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	747	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	70.9%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	64:68	4	733	3500:1965	1312	55.9%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	65:69	4	747	3500:1810	1389	53.8%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	63	-	506	1805:1700	714	70.9%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	33	1890	92	35.8%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	212	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	847	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	43	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	285	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	371	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	261	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	-	-	141	6	2	25.9	6.9	0.2	33.0	-	-	-	-
J1: Academy Street/Dublin Road	-	-	73	0	2	3.9	3.3	0.0	7.2	-	-	-	-
1/1	1059	1059	-	-	-	1.3	1.2	-	2.6	8.7	11.8	1.2	13.0
2/1	669	669	12	0	0	0.6	0.4	0.0	1.0	5.3	5.0	0.4	5.4
3/1	123	123	-	-	-	1.0	0.9	-	1.9	55.7	2.1	0.9	3.0
4/1	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	269	269	-	-	-	0.1	0.1	-	0.2	2.1	0.3	0.1	0.4
7/1	89	89	-	-	-	0.9	0.5	-	1.3	53.8	1.9	0.5	2.4
8/1	151	151	61	0	2	0.1	0.1	0.0	0.2	4.0	0.8	0.1	0.9
9/1	216	216	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	170	170	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.9	0.0	0.9	-	-	-	-
1/1	747	747	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	1059	1059	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	67	6	0	22.0	2.7	0.2	24.9	-	-	-	-
1/1+1/2	733	733	55	5	0	7.8	0.6	0.2	8.6	42.1	25.5	0.6	26.1
2/1+2/2	747	747	12	1	0	7.7	0.6	0.0	8.4	40.3	25.7	0.6	26.3
3/2+3/1	506	506	-	-	-	5.8	1.2	-	7.0	49.8	18.8	1.2	20.0
4/1	33	33	-	-	-	0.7	0.3	-	1.0	105.7	1.4	0.3	1.7

Full Input Data And Results

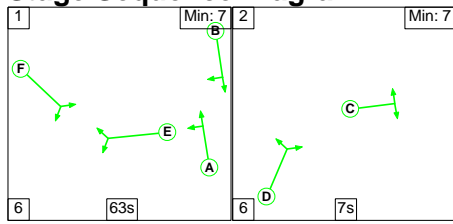
5/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">25.8</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">7.11</td> <td style="width: 20%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>27.0</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>24.90</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>25.8</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>33.03</td> <td></td> <td></td> </tr> </tbody> </table>															C1	PRC for Signalled Lanes (%):	25.8	Total Delay for Signalled Lanes (pcuHr):	7.11	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	24.90	Cycle Time (s):	164			PRC Over All Lanes (%):	25.8	Total Delay Over All Lanes(pcuHr):	33.03		
	C1	PRC for Signalled Lanes (%):	25.8	Total Delay for Signalled Lanes (pcuHr):	7.11	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	24.90	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	25.8	Total Delay Over All Lanes(pcuHr):	33.03																																

Full Input Data And Results

Scenario 7: 'AM Opening Year + 5 Years Without Development Flows' (FG7: 'AM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

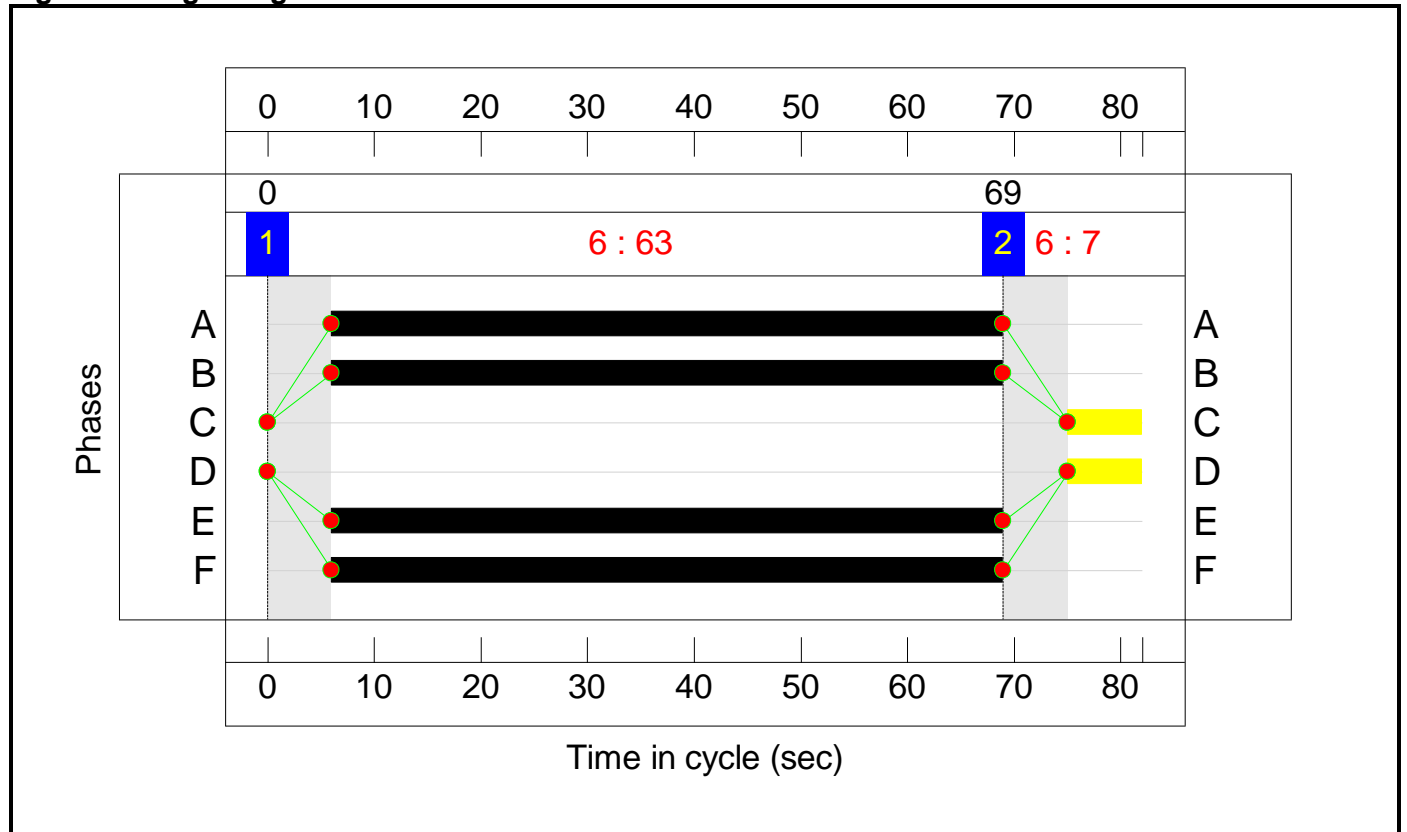
Stage Sequence Diagram



Stage Timings

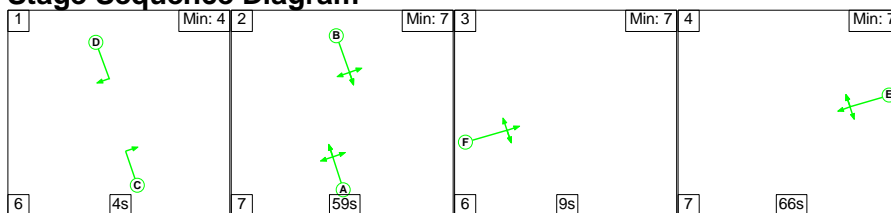
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

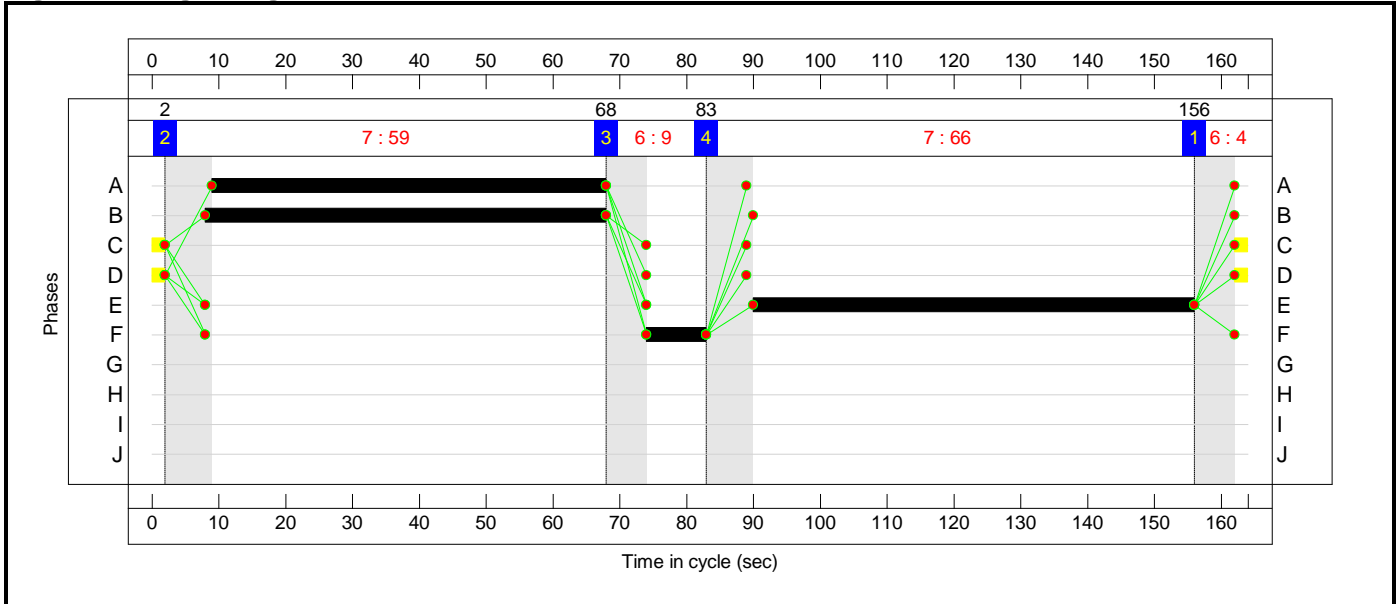


Full Input Data And Results

Stage Timings

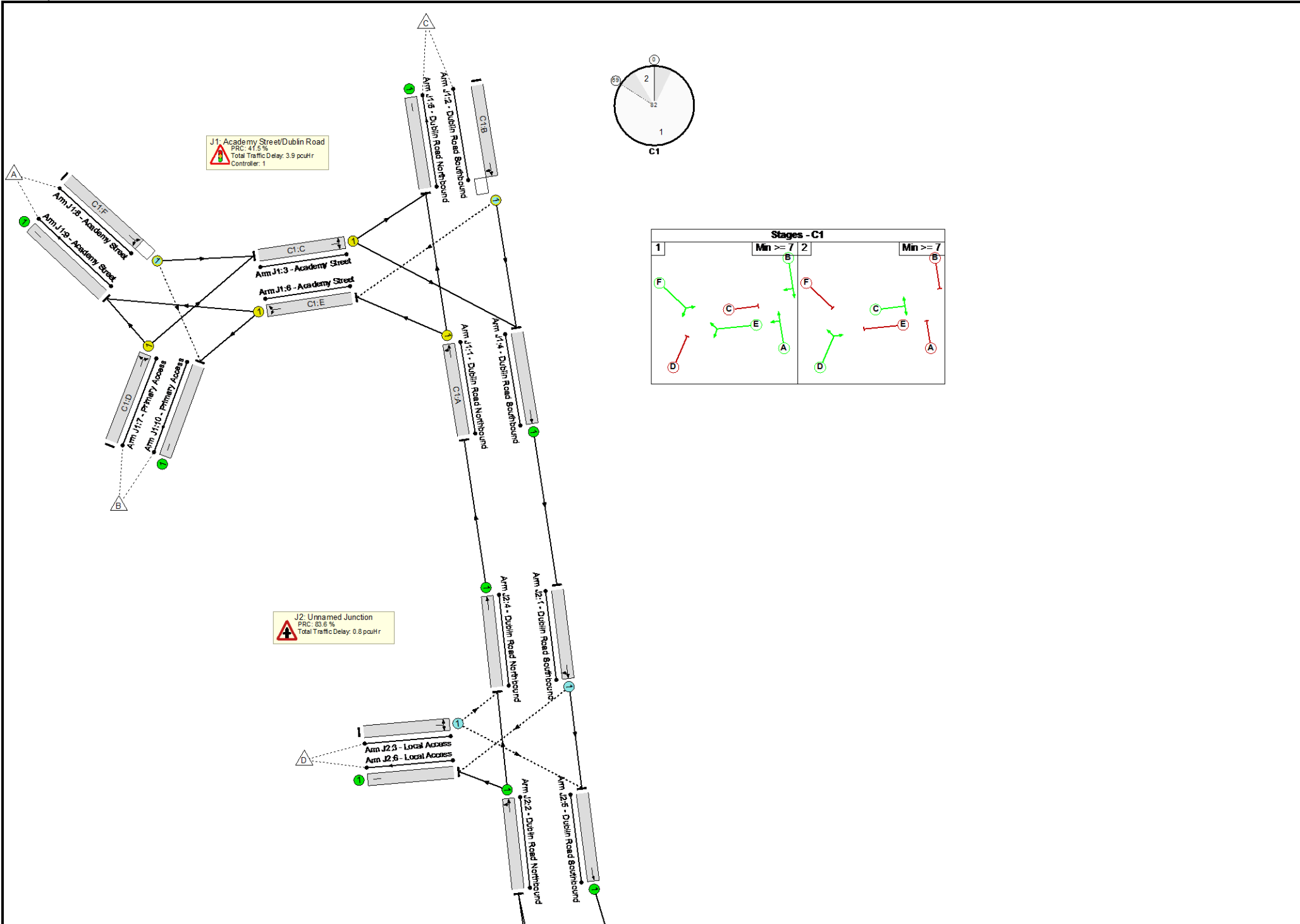
Stage	1	2	3	4
Duration	4	59	9	66
Change Point	156	2	68	83

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	63.6%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	63.6%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	951	1916	1495	63.6%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	786	1939	1513	51.9%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	46	1970	192	23.9%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	842	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	132	2115	1651	8.0%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	46	2015	1573	2.9%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	132	2015	2015	6.6%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	49.0%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	809	1940	1940	41.7%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	951	1940	1940	49.0%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	297	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	951	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	809	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	63.5%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	59:63	4	646	3500:1965	1125	57.4%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	60:64	4	809	3500:1810	1287	62.9%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	66	-	474	1808:1700	747	63.5%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	9	-	69	1914	117	59.1%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	216	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	735	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	40	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	378	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	354	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	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	-	-	100	9	0	25.6	5.6	0.4	31.6	-	-	-	-
J1: Academy Street/Dublin Road	-	-	7	0	0	2.2	1.7	0.0	3.9	-	-	-	-
1/1	951	951	-	-	-	1.0	0.9	-	1.9	7.2	9.2	0.9	10.1
2/1	786	786	7	0	0	0.7	0.5	0.0	1.3	5.8	6.5	0.5	7.1
3/1	46	46	-	-	-	0.4	0.2	-	0.6	44.7	1.0	0.2	1.1
4/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	842	842	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	132	132	-	-	-	0.0	0.0	-	0.1	2.0	0.2	0.0	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	46	46	0	0	0	0.0	0.0	0.0	0.0	3.3	0.2	0.0	0.2
9/1	132	132	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.8	0.0	0.8	-	-	-	-
1/1	809	809	0	0	0	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
2/1	951	951	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	93	9	0	23.3	3.1	0.4	26.8	-	-	-	-
1/1+1/2	646	646	82	8	0	7.4	0.7	0.4	8.5	47.4	22.8	0.7	23.5
2/1+2/2	809	809	11	1	0	9.5	0.8	0.0	10.3	46.0	30.1	0.8	30.9
3/2+3/1	474	474	-	-	-	5.0	0.9	-	5.9	44.5	16.6	0.9	17.5
4/1	69	69	-	-	-	1.4	0.7	-	2.1	111.7	3.0	0.7	3.7

Full Input Data And Results

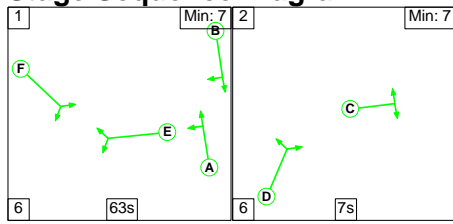
5/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	40	40	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">41.5</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">3.87</td> <td style="width: 20%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>41.8</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>26.85</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>41.5</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>31.59</td> <td></td> <td></td> </tr> </tbody> </table>															C1	PRC for Signalled Lanes (%):	41.5	Total Delay for Signalled Lanes (pcuHr):	3.87	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	41.8	Total Delay for Signalled Lanes (pcuHr):	26.85	Cycle Time (s):	164			PRC Over All Lanes (%):	41.5	Total Delay Over All Lanes(pcuHr):	31.59		
	C1	PRC for Signalled Lanes (%):	41.5	Total Delay for Signalled Lanes (pcuHr):	3.87	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	41.8	Total Delay for Signalled Lanes (pcuHr):	26.85	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	41.5	Total Delay Over All Lanes(pcuHr):	31.59																																

Full Input Data And Results

Scenario 8: 'PM Opening Year + 5 Years Without Development Flows' (FG8: 'PM Opening Year + 5 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

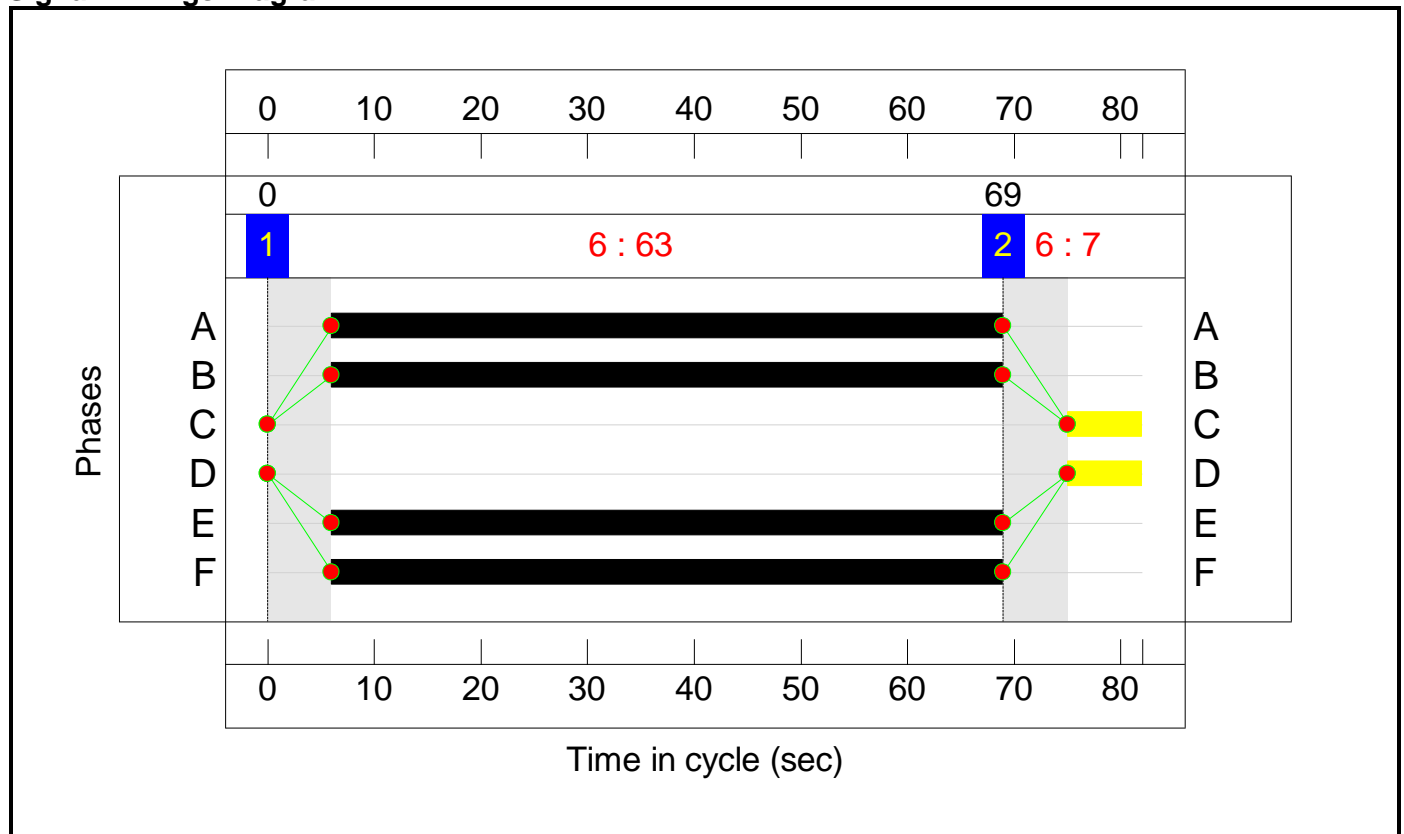
Stage Sequence Diagram



Stage Timings

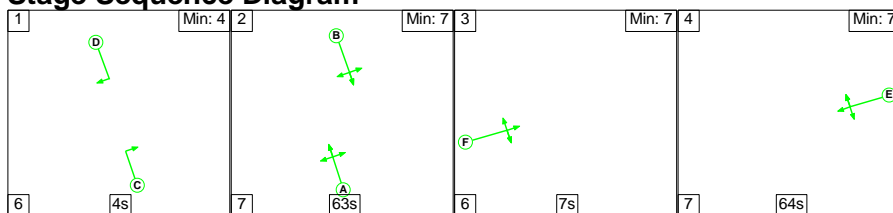
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

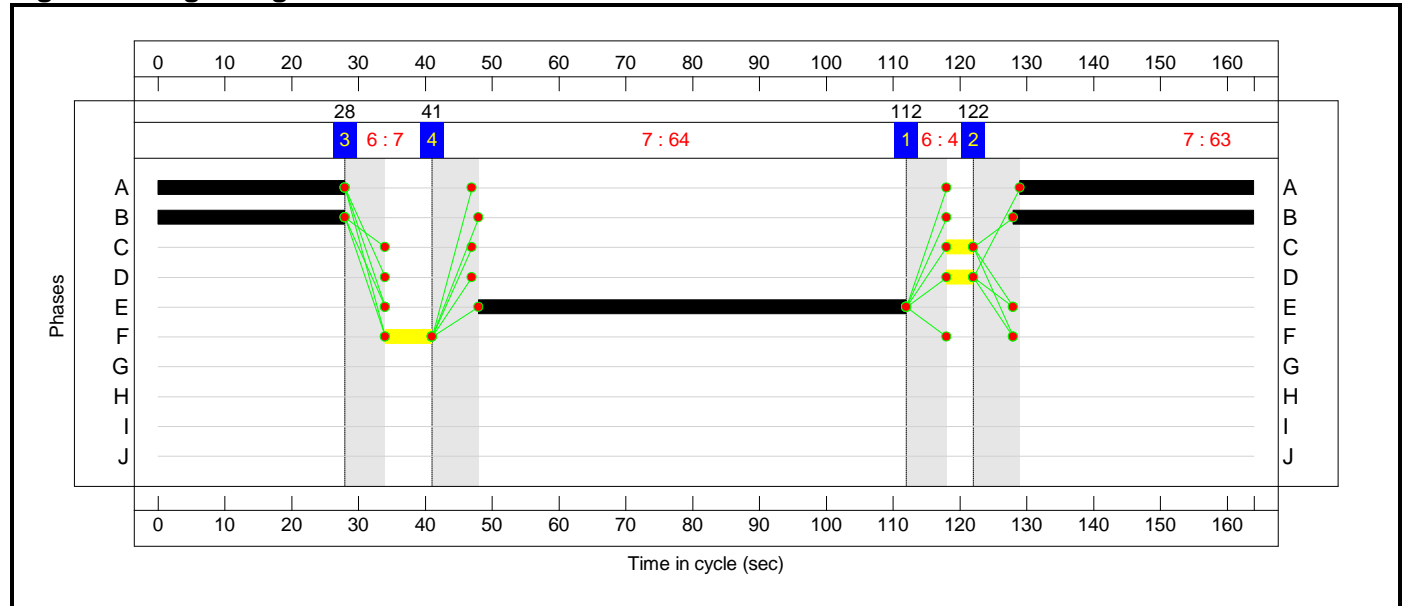


Full Input Data And Results

Stage Timings

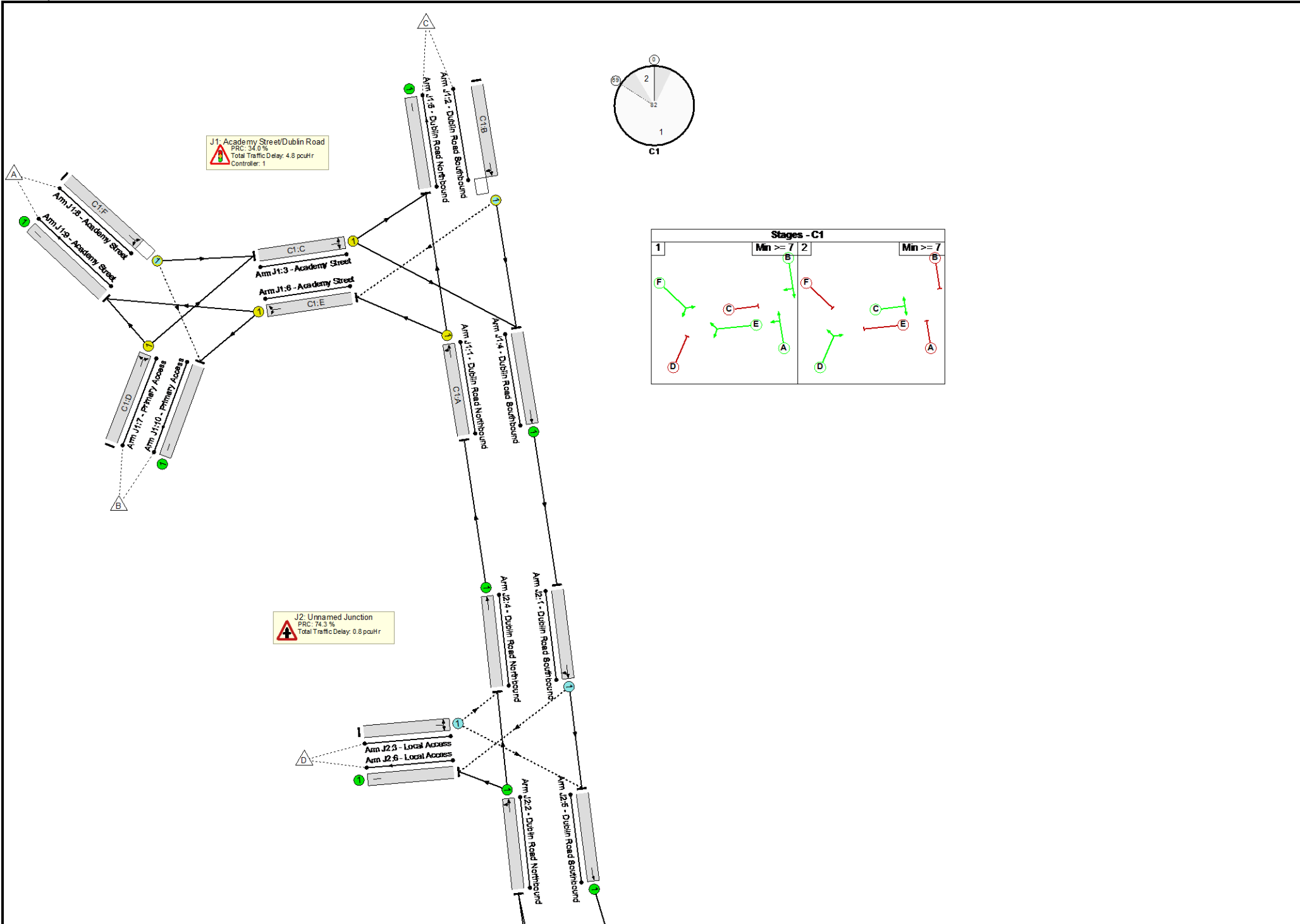
Stage	1	2	3	4
Duration	4	63	7	64
Change Point	112	122	28	41

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	67.1%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	67.1%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	1002	1912	1492	67.1%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	705	1937	1512	46.6%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	93	1970	192	48.4%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	879	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	169	2115	1651	10.2%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	93	2015	1573	5.9%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	169	2015	2015	8.4%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	51.6%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	752	1940	1940	38.8%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1002	1940	1940	51.6%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	297	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1002	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	752	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	67.1%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	63:67	4	707	3500:1965	1285	55.0%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	64:68	4	752	3500:1810	1368	55.0%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	64	-	487	1805:1700	725	67.1%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	32	1899	93	34.5%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	197	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	805	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	44	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	290	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	378	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	264	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	-	-	82	6	0	24.3	5.4	0.3	30.0	-	-	-	-
J1: Academy Street/Dublin Road	-	-	12	0	0	2.7	2.1	0.0	4.8	-	-	-	-
1/1	1002	1002	-	-	-	1.2	1.0	-	2.2	7.8	10.3	1.0	11.3
2/1	705	705	12	0	0	0.6	0.4	0.0	1.1	5.4	5.5	0.4	5.9
3/1	93	93	-	-	-	0.9	0.5	-	1.3	51.2	2.0	0.5	2.4
4/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	879	879	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	169	169	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.3
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	93	93	0	0	0	0.1	0.0	0.0	0.1	3.3	0.5	0.0	0.5
9/1	169	169	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.8	0.0	0.8	-	-	-	-
1/1	752	752	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	1002	1002	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1002	1002	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	70	6	0	21.6	2.5	0.2	24.3	-	-	-	-
1/1+1/2	707	707	58	5	0	7.6	0.6	0.2	8.4	42.8	24.7	0.6	25.4
2/1+2/2	752	752	12	1	0	8.0	0.6	0.0	8.6	41.2	26.3	0.6	26.9
3/2+3/1	487	487	-	-	-	5.4	1.0	-	6.4	47.2	17.5	1.0	18.5
4/1	32	32	-	-	-	0.7	0.3	-	0.9	104.9	1.4	0.3	1.7

Full Input Data And Results

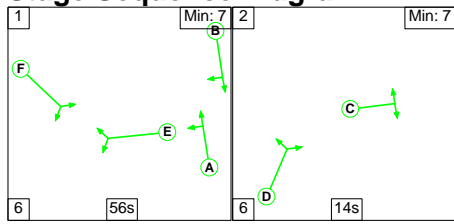
5/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	805	805	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	44	44	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	264	264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table border="0"> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>34.0</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>4.74</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>34.1</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>24.33</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>34.0</td> <td>Total Delay Over All Lanes (pcuHr)</td> <td>29.96</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	34.0	Total Delay for Signalled Lanes (pcuHr)	4.74	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	34.1	Total Delay for Signalled Lanes (pcuHr)	24.33	Cycle Time (s)	164		PRC Over All Lanes (%)	34.0	Total Delay Over All Lanes (pcuHr)	29.96		
C1	PRC for Signalled Lanes (%)	34.0	Total Delay for Signalled Lanes (pcuHr)	4.74	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	34.1	Total Delay for Signalled Lanes (pcuHr)	24.33	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	34.0	Total Delay Over All Lanes (pcuHr)	29.96																														

Full Input Data And Results

Scenario 9: 'AM Opening Year + 5 Years With Development Flows' (FG9: 'AM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

C1

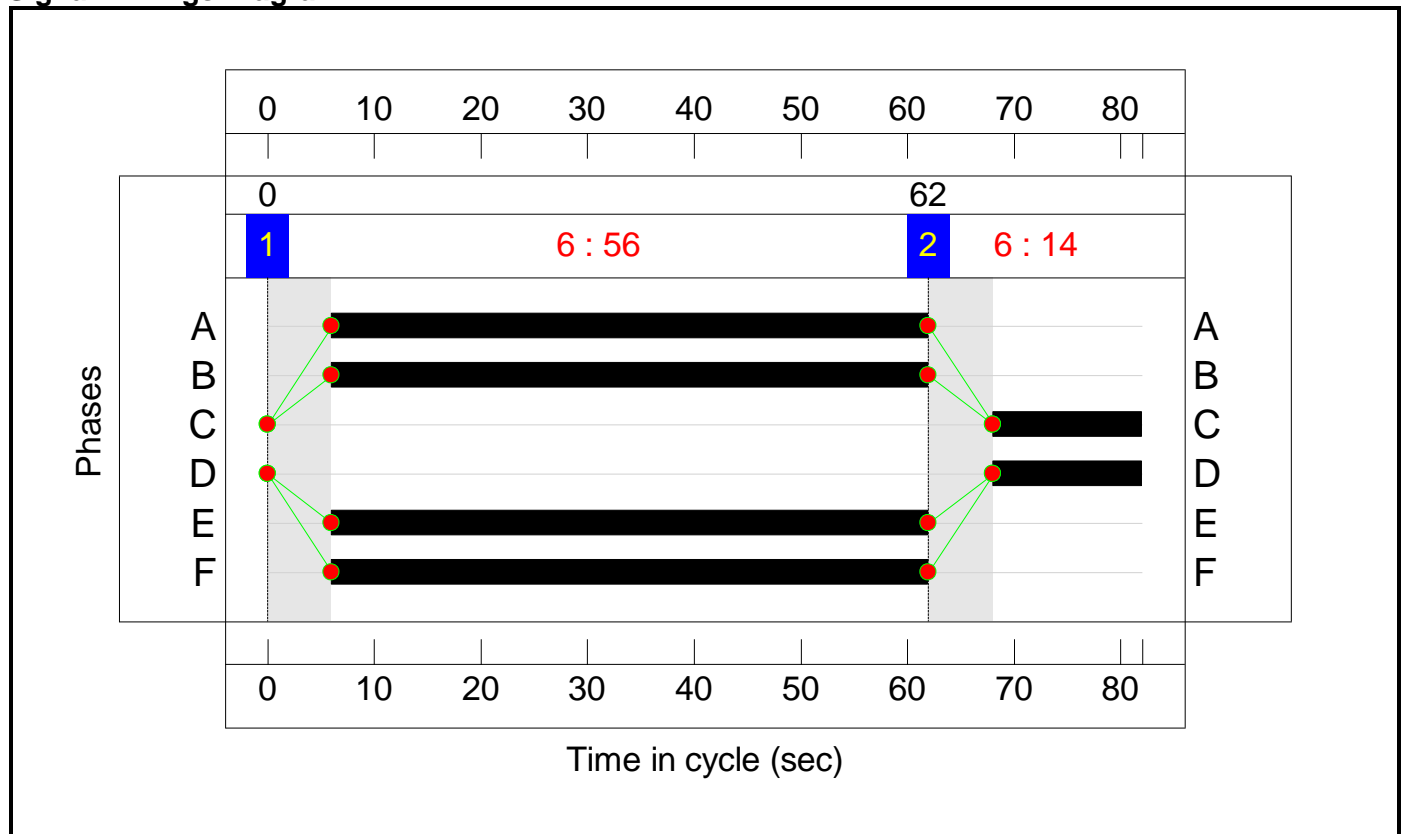
Stage Sequence Diagram



Stage Timings

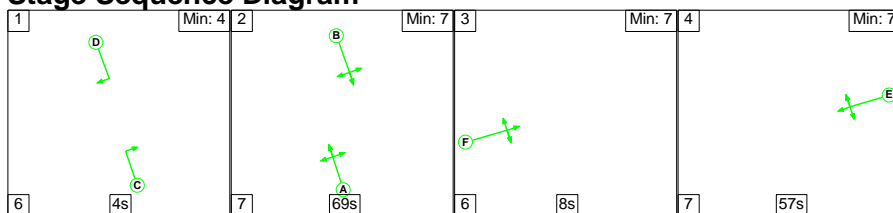
Stage	1	2
Duration	56	14
Change Point	0	62

Signal Timings Diagram



C2

Stage Sequence Diagram

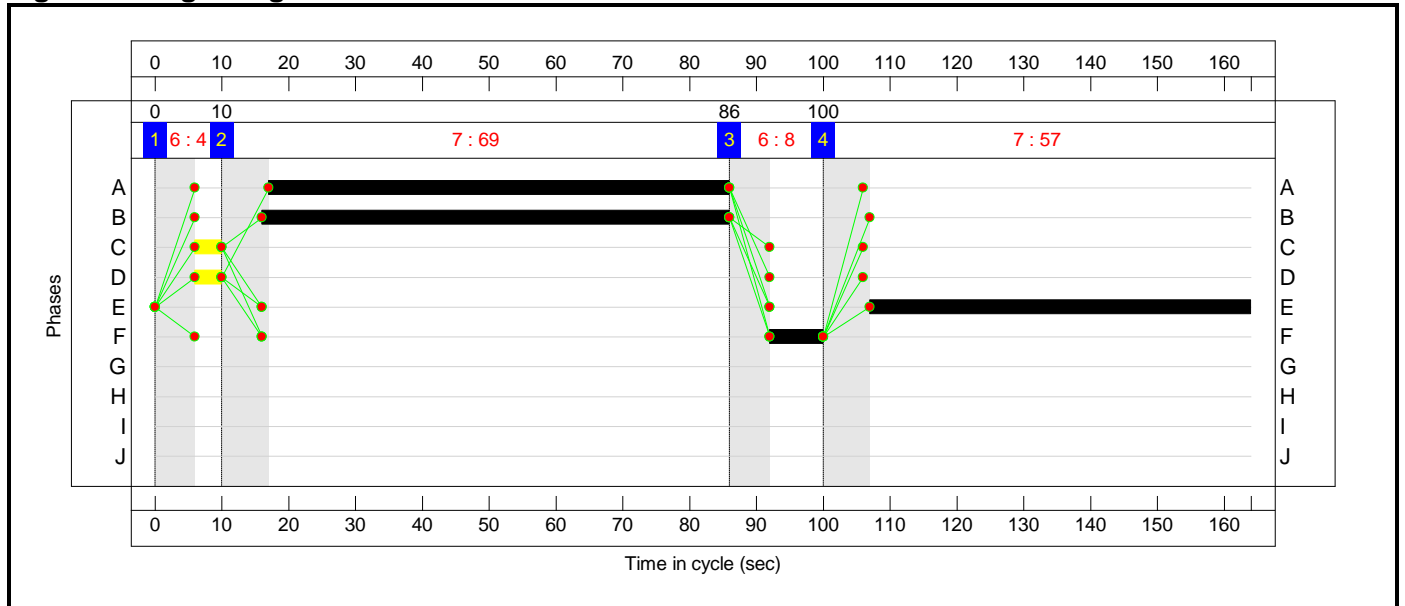


Full Input Data And Results

Stage Timings

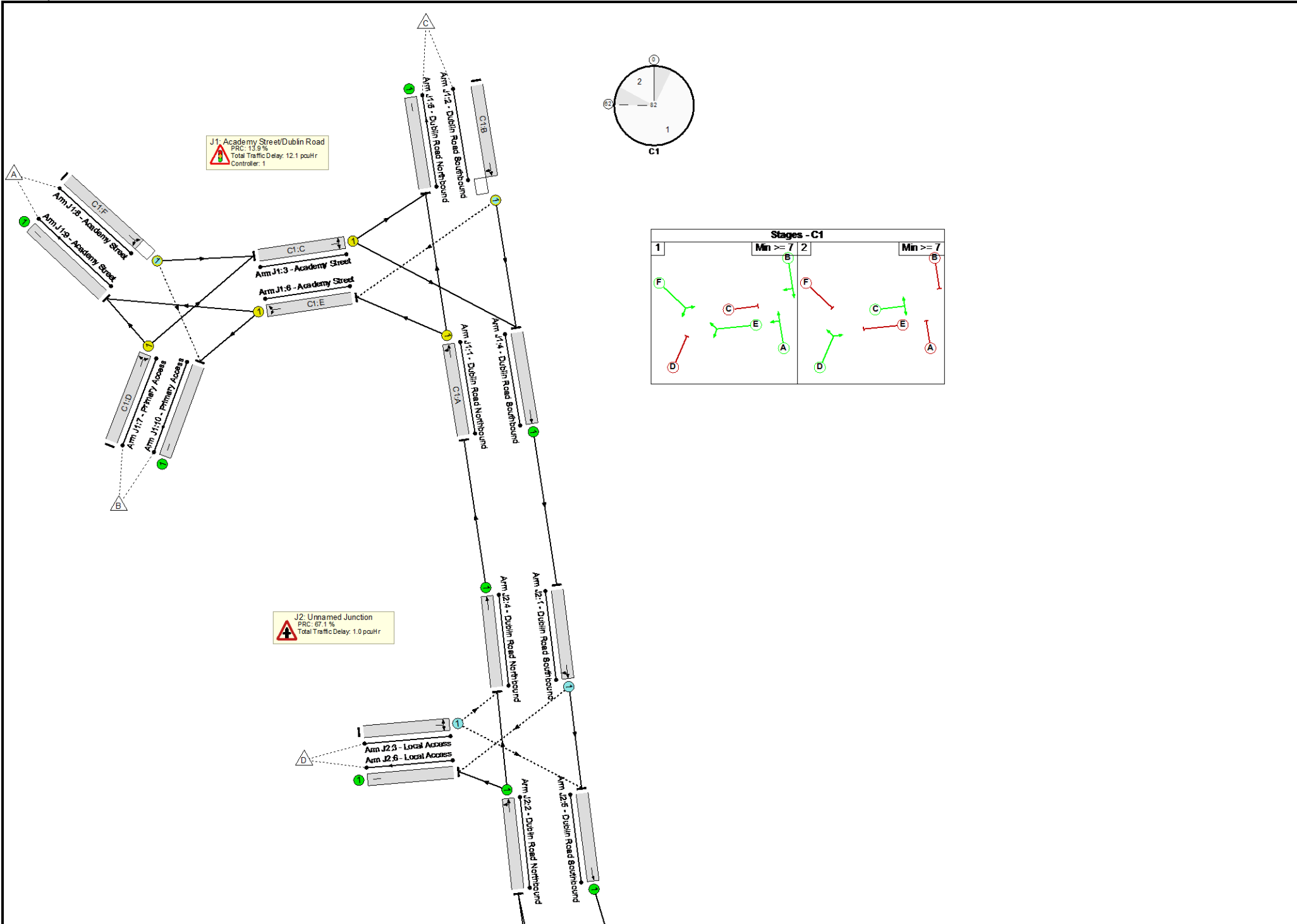
Stage	1	2	3	4
Duration	4	69	8	57
Change Point	0	10	86	100

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	79.0%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	79.0%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	56	-	1045	1902	1322	79.0%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	56	-	788	1938	1347	58.5%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	14	-	162	1977	362	44.8%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	841	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	56	-	231	2115	1470	15.7%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	14	-	268	1890	346	77.5%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	56	-	118	2015	965	12.2%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	287	2015	2015	14.2%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	168	1890	1890	8.9%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	53.9%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	923	1940	1940	47.6%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1045	1940	1940	53.9%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	249	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1045	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	923	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	79.0%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	69:73	4	699	3500:1965	1326	52.7%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	70:74	4	923	3500:1810	1492	61.8%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	57	-	512	1807:1700	648	79.0%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	8	-	74	1910	105	70.6%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	239	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	806	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	45	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	420	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	390	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	308	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	-	-	178	9	2	31.3	10.3	0.5	42.1	-	-	-	-
J1: Academy Street/Dublin Road	-	-	78	0	2	7.1	4.9	0.0	12.1	-	-	-	-
1/1	1045	1045	-	-	-	2.5	1.9	-	4.3	14.9	16.0	1.9	17.8
2/1	788	788	8	0	0	1.4	0.7	0.0	2.1	9.8	9.2	0.7	9.9
3/1	162	162	-	-	-	0.7	0.4	-	1.1	24.2	1.3	0.4	1.7
4/1	923	923	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	841	841	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	231	231	-	-	-	0.1	0.1	-	0.2	2.6	0.3	0.1	0.4
7/1	268	268	-	-	-	2.4	1.7	-	4.0	54.1	5.8	1.7	7.5
8/1	118	118	70	0	2	0.1	0.1	0.0	0.2	6.4	0.9	0.1	0.9
9/1	287	287	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	168	168	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	1.0	0.0	1.0	-	-	-	-
1/1	923	923	0	0	0	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
2/1	1045	1045	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1045	1045	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	923	923	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	99	9	0	24.1	4.3	0.5	29.0	-	-	-	-
1/1+1/2	699	699	83	8	0	6.7	0.6	0.5	7.7	39.8	22.8	0.6	23.4
2/1+2/2	923	923	16	1	0	9.2	0.8	0.0	10.1	39.2	32.3	0.8	33.1
3/2+3/1	512	512	-	-	-	6.7	1.8	-	8.5	59.7	20.4	1.8	22.3
4/1	74	74	-	-	-	1.6	1.1	-	2.7	130.7	3.3	1.1	4.4

Full Input Data And Results

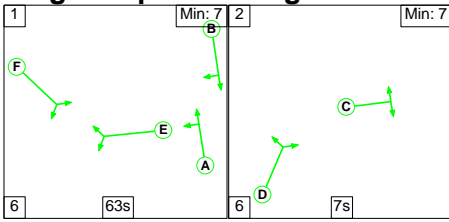
5/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	420	420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">13.9</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">11.95</td> <td style="width: 10%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>13.9</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>28.95</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>13.9</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>42.07</td> <td></td> <td></td> </tr> </table>															C1	PRC for Signalled Lanes (%):	13.9	Total Delay for Signalled Lanes (pcuHr):	11.95	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	13.9	Total Delay for Signalled Lanes (pcuHr):	28.95	Cycle Time (s):	164			PRC Over All Lanes (%):	13.9	Total Delay Over All Lanes(pcuHr):	42.07		
	C1	PRC for Signalled Lanes (%):	13.9	Total Delay for Signalled Lanes (pcuHr):	11.95	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	13.9	Total Delay for Signalled Lanes (pcuHr):	28.95	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	13.9	Total Delay Over All Lanes(pcuHr):	42.07																																

Full Input Data And Results

Scenario 10: 'PM Opening Year + 5 Years With Development Flows' (FG10: 'PM Opening Year + 5 Years With Development Flows', Plan 1: 'Network Control Plan 1')

C1

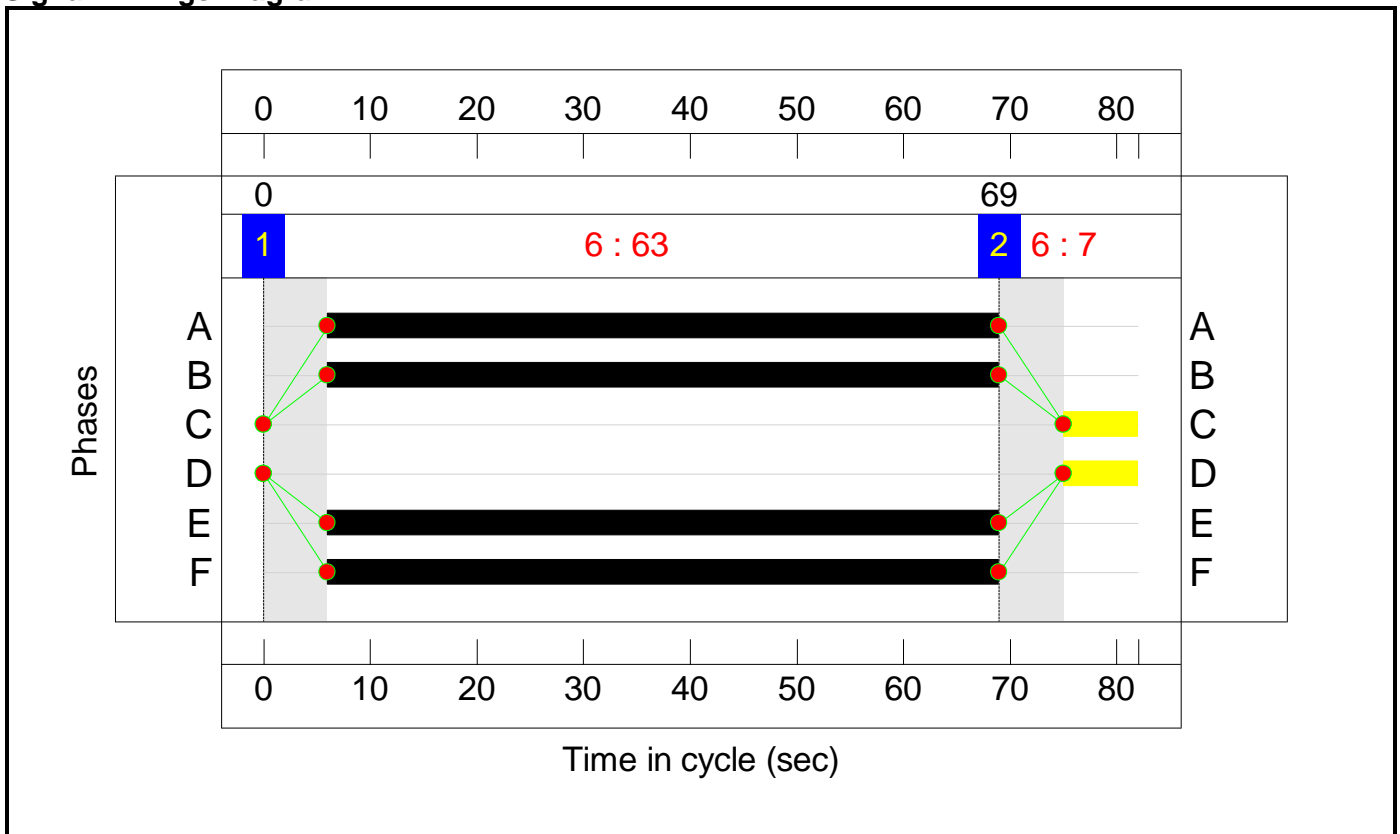
Stage Sequence Diagram



Stage Timings

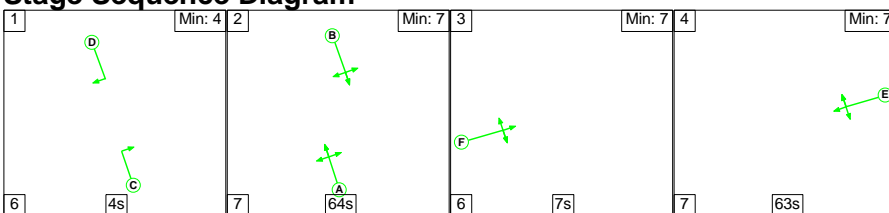
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

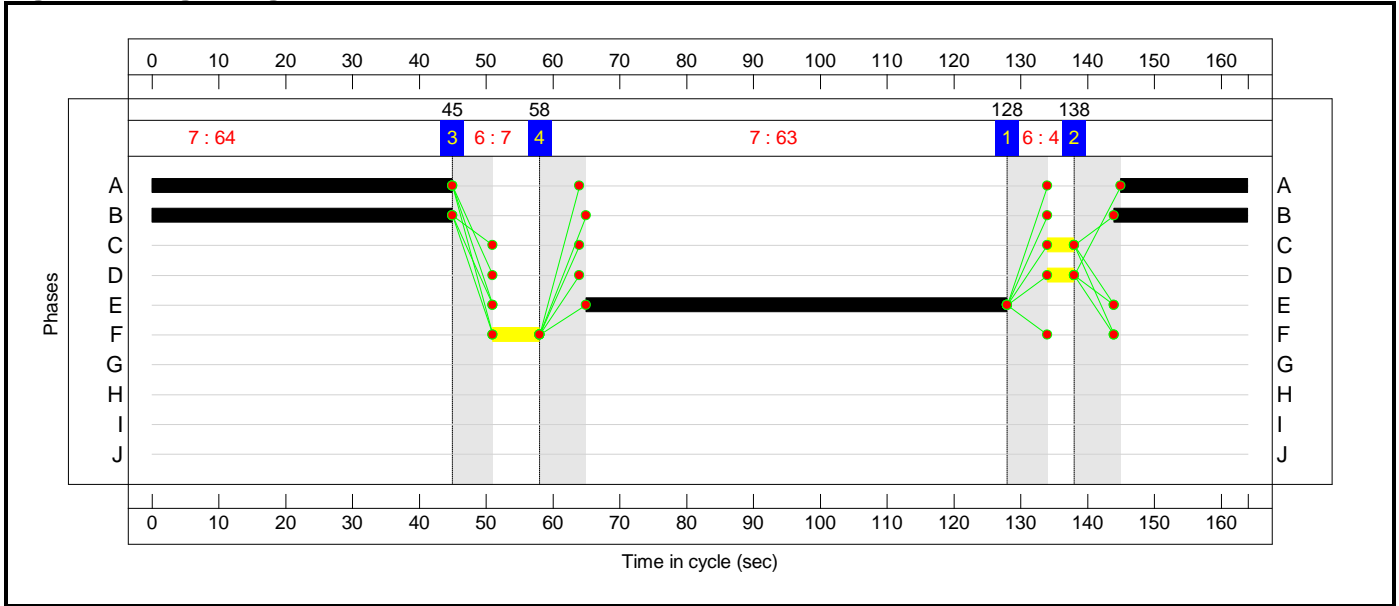


Full Input Data And Results

Stage Timings

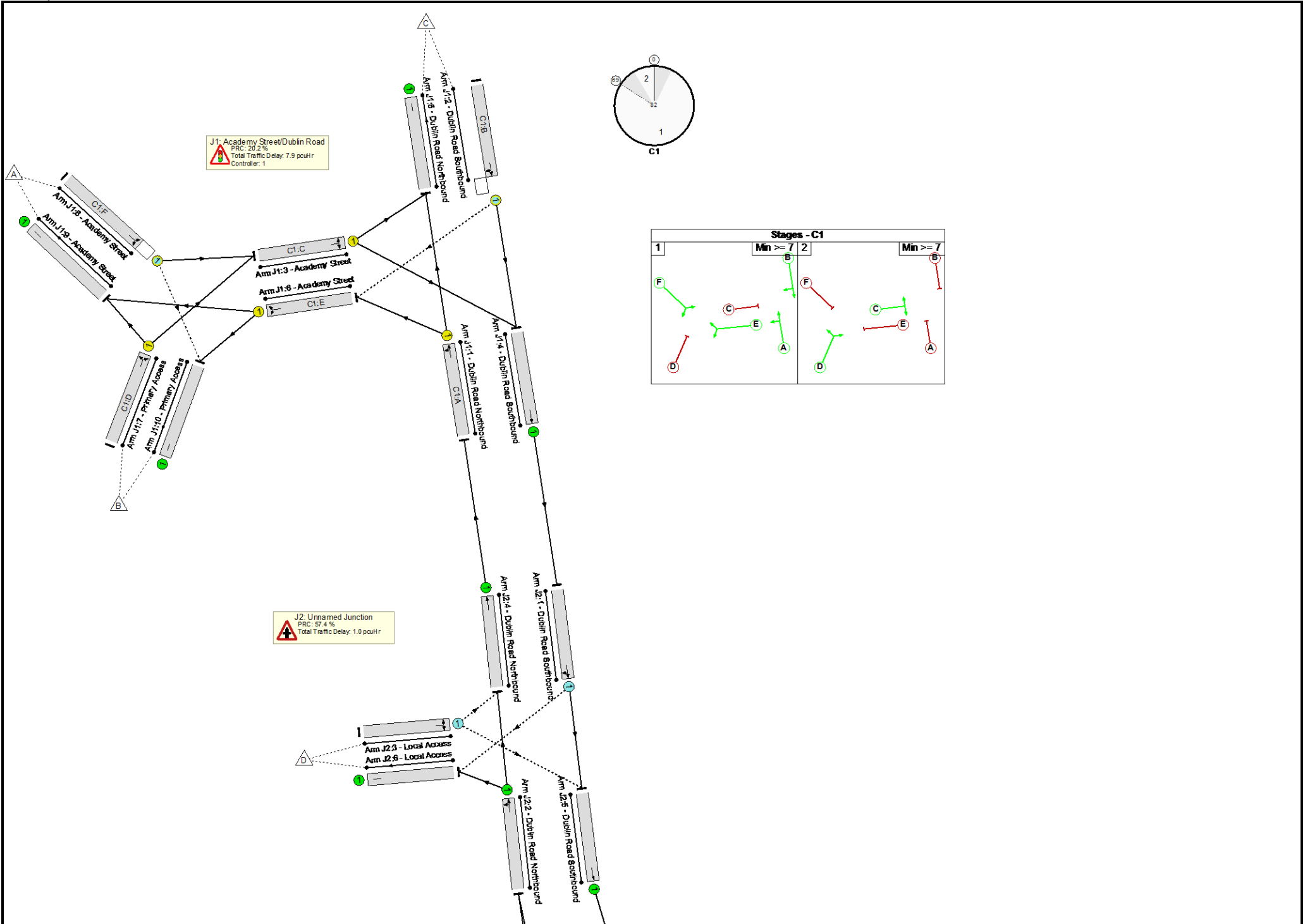
Stage	1	2	3	4
Duration	4	64	7	63
Change Point	128	138	45	58

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	74.9%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	74.9%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	1109	1897	1481	74.9%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	705	1937	1512	46.6%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	128	1973	192	66.5%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	787	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	277	2115	1651	16.8%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	89	1890	184	48.3%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	156	2015	1191	13.1%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	224	2015	2015	11.1%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	170	1890	1890	9.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	57.2%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	787	1940	1940	40.6%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1109	1940	1940	57.2%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	264	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1109	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	787	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	74.2%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	64:68	4	768	3500:1965	1311	58.6%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	65:69	4	787	3500:1810	1388	56.7%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	63	-	530	1805:1700	714	74.2%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	36	1893	92	39.0%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	222	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	887	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	45	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	300	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	391	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	276	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	-	-	145	6	2	27.7	7.7	0.3	35.7	-	-	-	-
J1: Academy Street/Dublin Road	-	-	73	0	2	4.2	3.6	0.0	7.9	-	-	-	-
1/1	1109	1109	-	-	-	1.5	1.5	-	2.9	9.6	13.2	1.5	14.7
2/1	705	705	12	0	0	0.6	0.4	0.0	1.1	5.5	5.5	0.4	5.9
3/1	128	128	-	-	-	1.1	1.0	-	2.1	57.7	2.3	1.0	3.2
4/1	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	277	277	-	-	-	0.1	0.1	-	0.2	2.1	0.3	0.1	0.4
7/1	89	89	-	-	-	0.9	0.5	-	1.3	53.8	1.9	0.5	2.4
8/1	156	156	61	0	2	0.1	0.1	0.0	0.2	4.0	0.8	0.1	0.9
9/1	224	224	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	170	170	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	1.0	0.0	1.0	-	-	-	-
1/1	787	787	0	0	0	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
2/1	1109	1109	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1109	1109	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	71	6	0	23.5	3.1	0.3	26.8	-	-	-	-
1/1+1/2	768	768	58	5	0	8.3	0.7	0.2	9.2	43.0	27.1	0.7	27.8
2/1+2/2	787	787	13	1	0	8.3	0.7	0.0	9.0	41.0	27.5	0.7	28.2
3/2+3/1	530	530	-	-	-	6.2	1.4	-	7.6	51.6	20.0	1.4	21.4
4/1	36	36	-	-	-	0.8	0.3	-	1.1	107.2	1.6	0.3	1.9

Full Input Data And Results

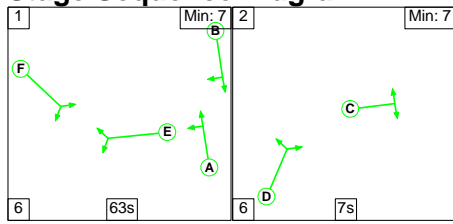
5/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	887	887	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>20.2</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>7.74</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>21.3</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>26.82</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>20.2</td> <td>Total Delay Over All Lanes (pcuHr)</td> <td>35.68</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	20.2	Total Delay for Signalled Lanes (pcuHr)	7.74	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	21.3	Total Delay for Signalled Lanes (pcuHr)	26.82	Cycle Time (s)	164		PRC Over All Lanes (%)	20.2	Total Delay Over All Lanes (pcuHr)	35.68		
C1	PRC for Signalled Lanes (%)	20.2	Total Delay for Signalled Lanes (pcuHr)	7.74	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	21.3	Total Delay for Signalled Lanes (pcuHr)	26.82	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	20.2	Total Delay Over All Lanes (pcuHr)	35.68																														

Full Input Data And Results

Scenario 11: 'AM Opening Year + 15 Years Without Development Flows' (FG11: 'AM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

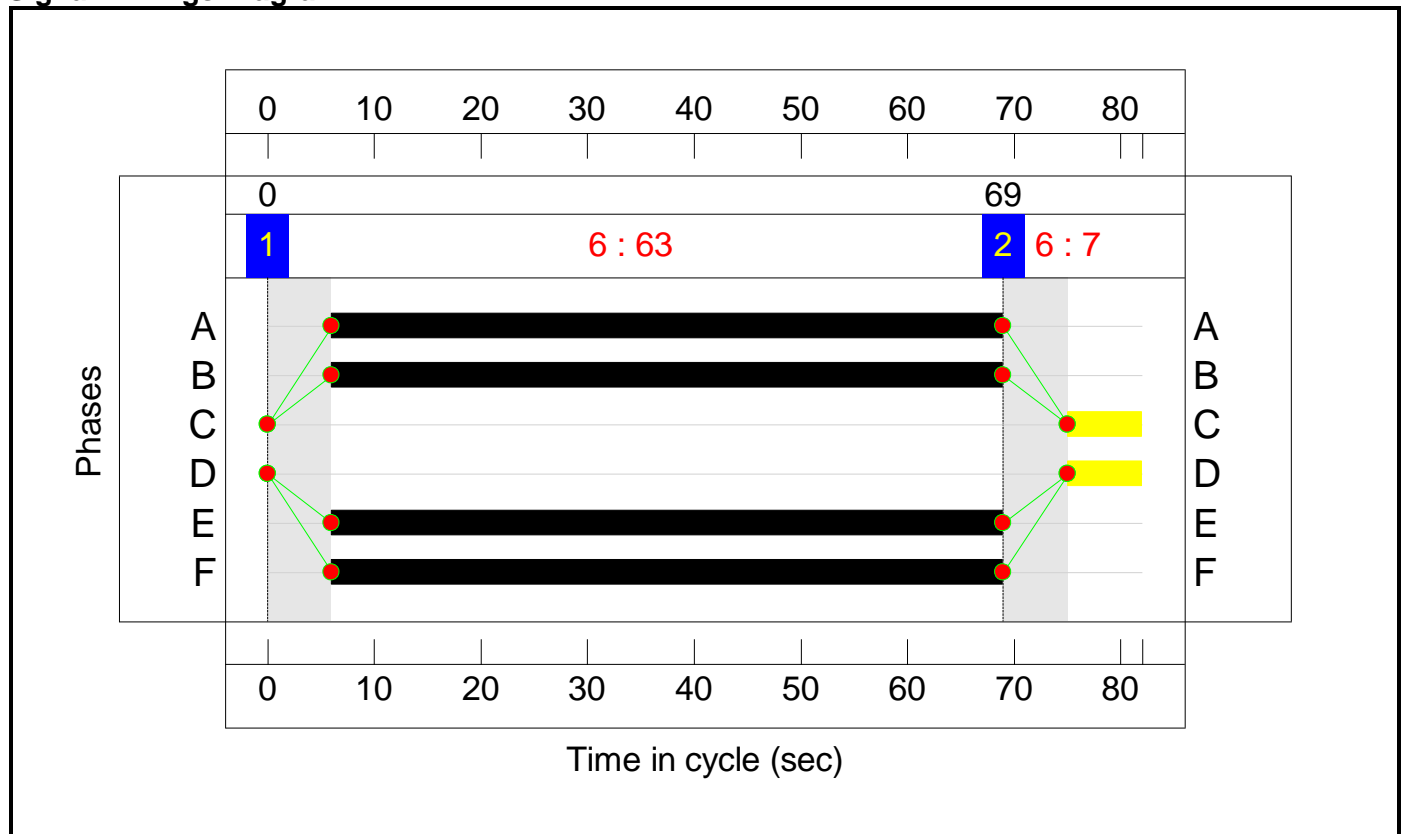
Stage Sequence Diagram



Stage Timings

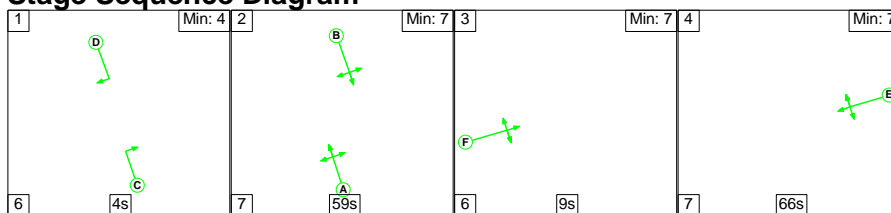
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

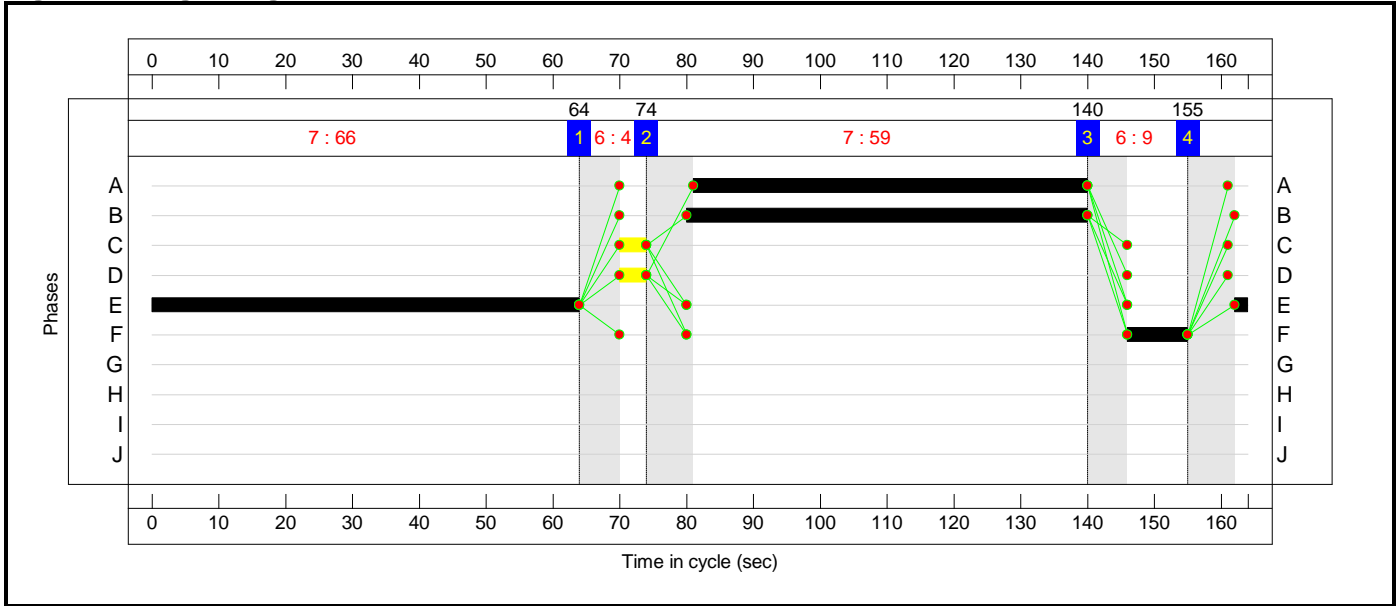


Full Input Data And Results

Stage Timings

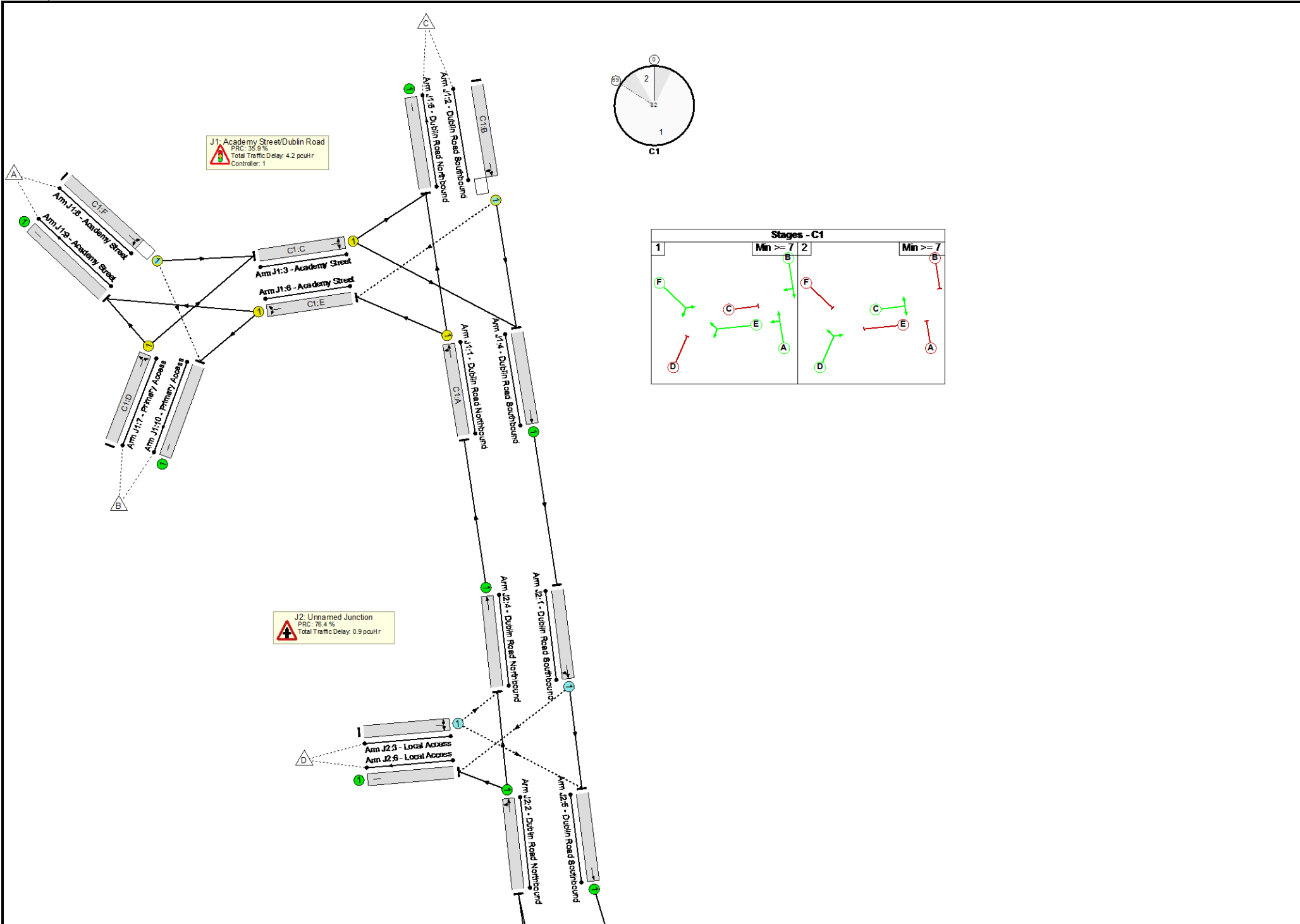
Stage	1	2	3	4
Duration	4	59	9	66
Change Point	64	74	140	155

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	66.2%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	66.2%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	990	1916	1495	66.2%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	819	1939	1513	54.1%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	48	1971	192	25.0%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	876	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	137	2115	1651	8.3%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	48	2015	1573	3.1%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	137	2015	2015	6.8%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	51.0%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	844	1940	1940	43.5%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	990	1940	1940	51.0%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	280	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	990	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	844	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	66.0%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	59:63	4	672	3500:1965	1090	61.7%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	60:64	4	844	3500:1810	1286	65.6%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	66	-	493	1808:1700	747	66.0%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	9	-	72	1915	117	61.7%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	225	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	765	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	42	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	394	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	369	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	286	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	-	-	104	9	0	27.0	6.2	0.5	33.7	-	-	-	-
J1: Academy Street/Dublin Road	-	-	7	0	0	2.4	1.8	0.0	4.2	-	-	-	-
1/1	990	990	-	-	-	1.1	1.0	-	2.1	7.6	10.2	1.0	11.2
2/1	819	819	7	0	0	0.8	0.6	0.0	1.4	6.1	7.1	0.6	7.6
3/1	48	48	-	-	-	0.4	0.2	-	0.6	44.9	1.0	0.2	1.2
4/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	137	137	-	-	-	0.0	0.0	-	0.1	2.0	0.2	0.0	0.2
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	48	48	0	0	0	0.0	0.0	0.0	0.0	3.3	0.2	0.0	0.3
9/1	137	137	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.9	0.0	0.9	-	-	-	-
1/1	844	844	0	0	0	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
2/1	990	990	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	97	9	0	24.6	3.5	0.5	28.6	-	-	-	-
1/1+1/2	672	672	85	8	0	7.8	0.8	0.4	9.1	48.7	24.1	0.8	24.9
2/1+2/2	844	844	12	1	0	10.0	1.0	0.0	11.0	46.9	31.9	1.0	32.8
3/2+3/1	493	493	-	-	-	5.3	1.0	-	6.2	45.6	17.6	1.0	18.6
4/1	72	72	-	-	-	1.5	0.8	-	2.3	114.0	3.2	0.8	4.0

Full Input Data And Results

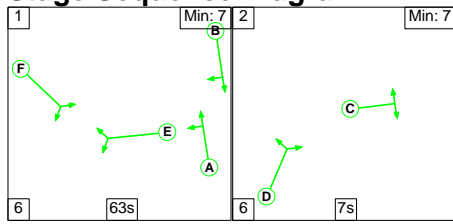
5/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	394	394	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>35.9</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>4.20</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>36.3</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>28.61</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>35.9</td> <td>Total Delay Over All Lanes(pcuHr)</td> <td>33.74</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	35.9	Total Delay for Signalled Lanes (pcuHr)	4.20	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	36.3	Total Delay for Signalled Lanes (pcuHr)	28.61	Cycle Time (s)	164		PRC Over All Lanes (%)	35.9	Total Delay Over All Lanes(pcuHr)	33.74		
C1	PRC for Signalled Lanes (%)	35.9	Total Delay for Signalled Lanes (pcuHr)	4.20	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	36.3	Total Delay for Signalled Lanes (pcuHr)	28.61	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	35.9	Total Delay Over All Lanes(pcuHr)	33.74																														

Full Input Data And Results

Scenario 12: 'PM Opening Year + 15 Years Without Development Flows' (FG12: 'PM Opening Year + 15 Years Without Development Flows', Plan 1: 'Network Control Plan 1')

C1

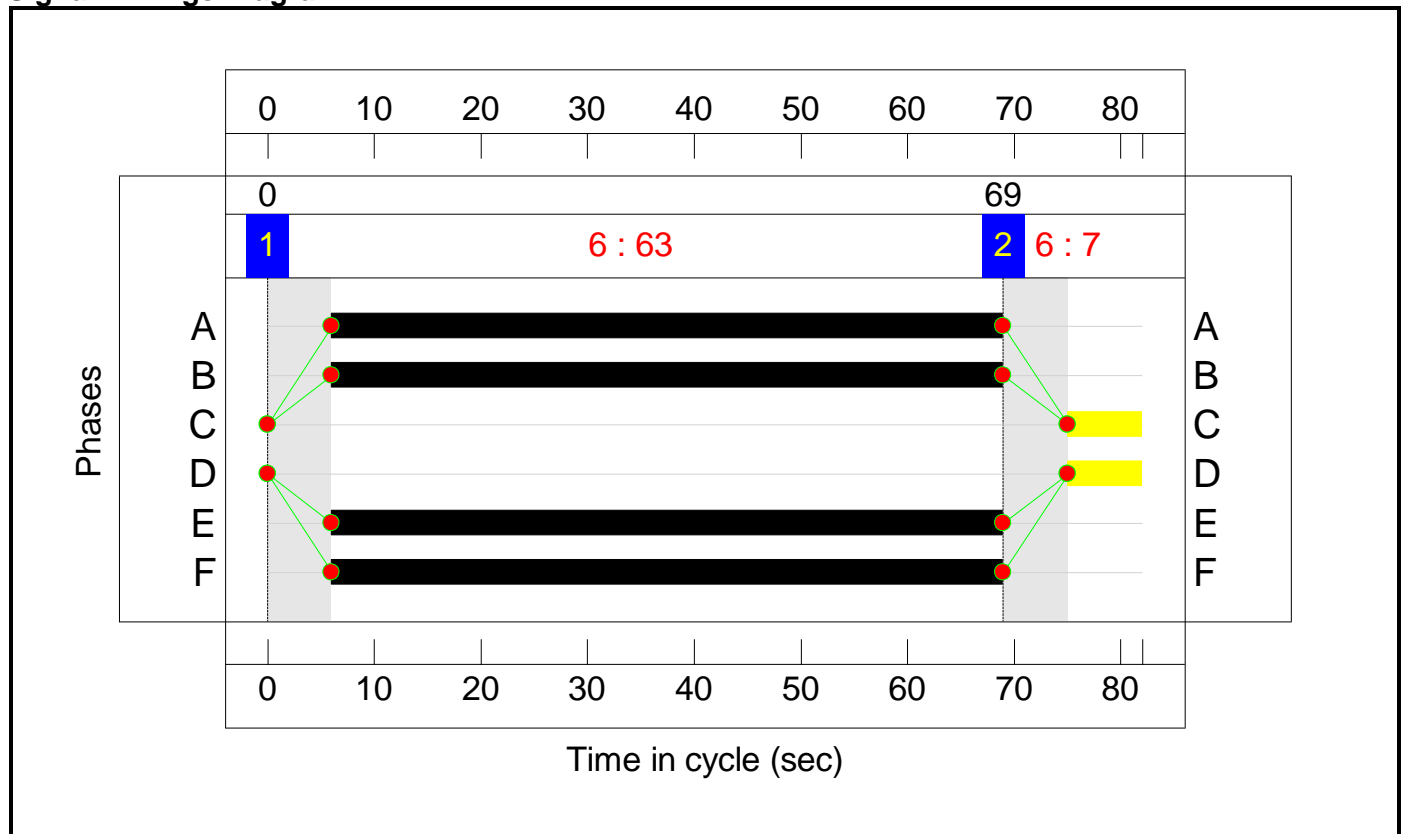
Stage Sequence Diagram



Stage Timings

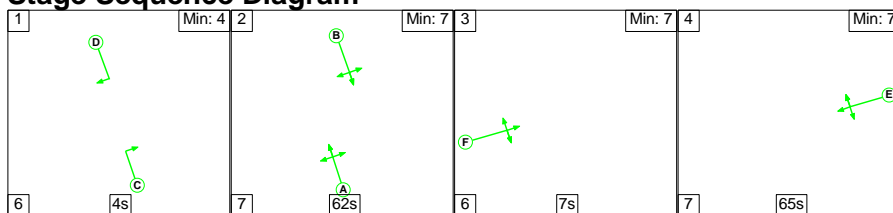
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

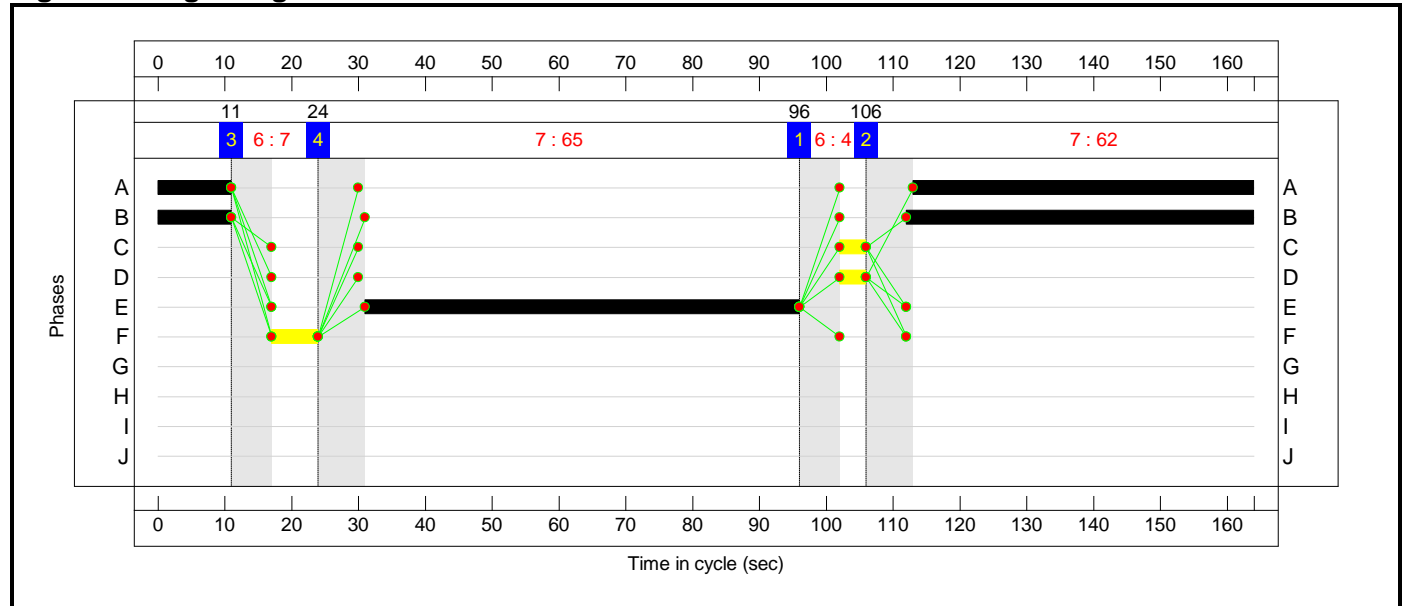


Full Input Data And Results

Stage Timings

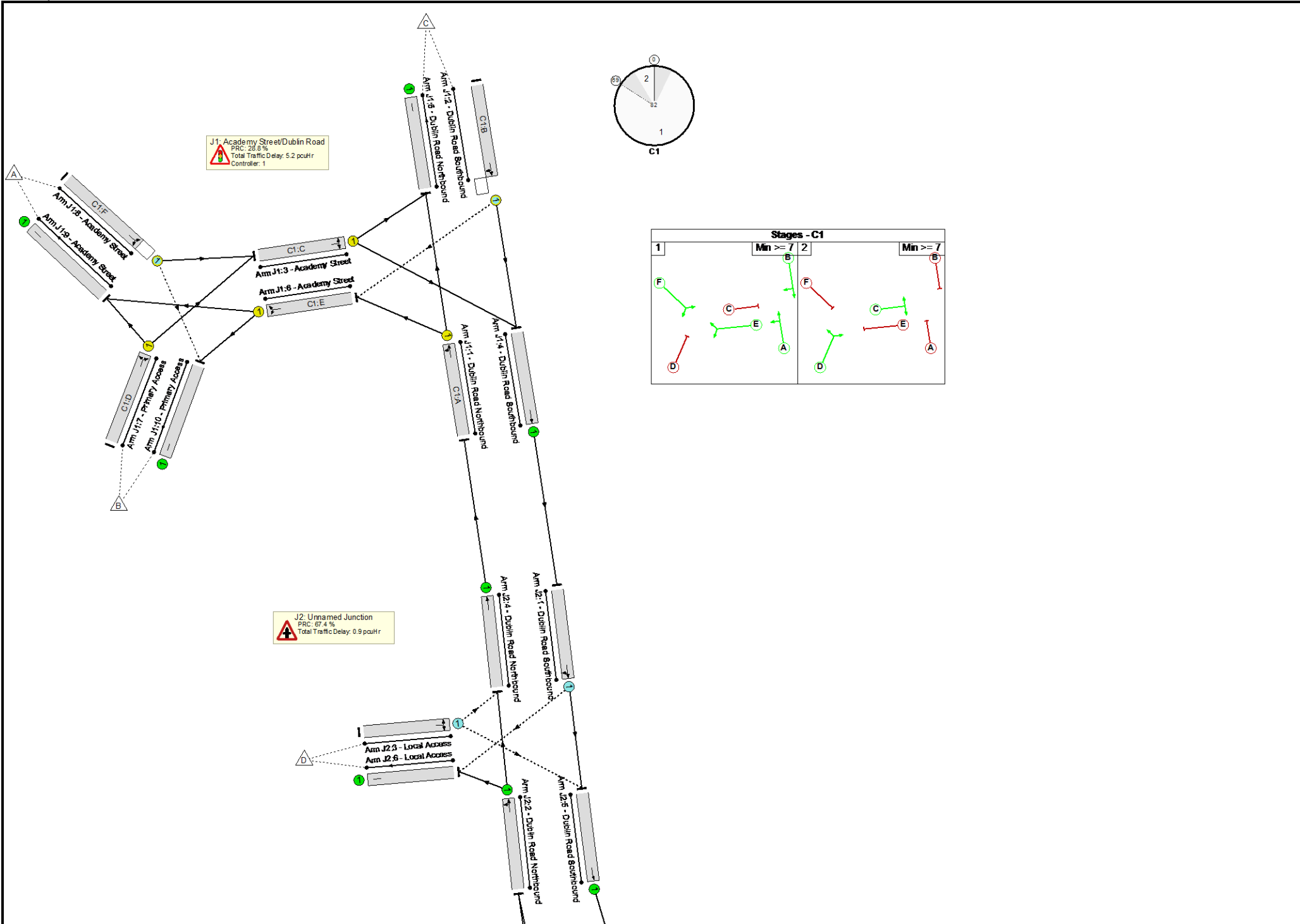
Stage	1	2	3	4
Duration	4	62	7	65
Change Point	96	106	11	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	69.9%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	69.9%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	1043	1912	1492	69.9%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	735	1937	1512	48.6%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	97	1970	192	50.5%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	783	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	177	2115	1651	10.7%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	0	1890	184	0.0%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	97	2015	1573	6.2%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	177	2015	2015	8.8%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	0	1890	1890	0.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	53.8%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	783	1940	1940	40.4%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1043	1940	1940	53.8%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	281	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1043	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	783	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	69.0%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	62:66	4	735	3500:1965	1266	58.1%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	63:67	4	783	3500:1810	1346	58.2%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	65	-	508	1805:1700	736	69.0%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	34	1896	92	36.8%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	206	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	837	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	47	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	301	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	395	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	274	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	-	-	86	6	0	25.9	6.0	0.3	32.2	-	-	-	-
J1: Academy Street/Dublin Road	-	-	13	0	0	2.9	2.3	0.0	5.2	-	-	-	-
1/1	1043	1043	-	-	-	1.3	1.2	-	2.4	8.3	11.3	1.2	12.5
2/1	735	735	13	0	0	0.7	0.5	0.0	1.1	5.6	5.9	0.5	6.4
3/1	97	97	-	-	-	0.9	0.5	-	1.4	52.0	2.1	0.5	2.6
4/1	783	783	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	177	177	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.3
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	97	97	0	0	0	0.1	0.0	0.0	0.1	3.3	0.5	0.0	0.5
9/1	177	177	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	0.9	0.0	0.9	-	-	-	-
1/1	783	783	0	0	0	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
2/1	1043	1043	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1043	1043	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	783	783	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	73	6	0	23.0	2.8	0.3	26.0	-	-	-	-
1/1+1/2	735	735	60	5	0	8.1	0.7	0.2	9.1	44.4	26.1	0.7	26.8
2/1+2/2	783	783	13	1	0	8.6	0.7	0.0	9.3	42.7	28.0	0.7	28.7
3/2+3/1	508	508	-	-	-	5.6	1.1	-	6.7	47.4	18.4	1.1	19.5
4/1	34	34	-	-	-	0.7	0.3	-	1.0	106.0	1.5	0.3	1.8

Full Input Data And Results

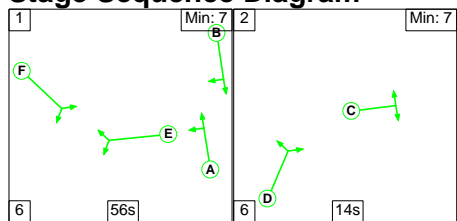
5/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	837	837	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	47	47	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table border="0"> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>28.8</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>5.15</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>30.4</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>26.04</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>28.8</td> <td>Total Delay Over All Lanes(pcuHr)</td> <td>32.16</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	28.8	Total Delay for Signalled Lanes (pcuHr)	5.15	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	30.4	Total Delay for Signalled Lanes (pcuHr)	26.04	Cycle Time (s)	164		PRC Over All Lanes (%)	28.8	Total Delay Over All Lanes(pcuHr)	32.16		
C1	PRC for Signalled Lanes (%)	28.8	Total Delay for Signalled Lanes (pcuHr)	5.15	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	30.4	Total Delay for Signalled Lanes (pcuHr)	26.04	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	28.8	Total Delay Over All Lanes(pcuHr)	32.16																														

Full Input Data And Results

Scenario 13: 'AM Opening Year + 15 Years With Development Flows' (FG13: 'AM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

C1

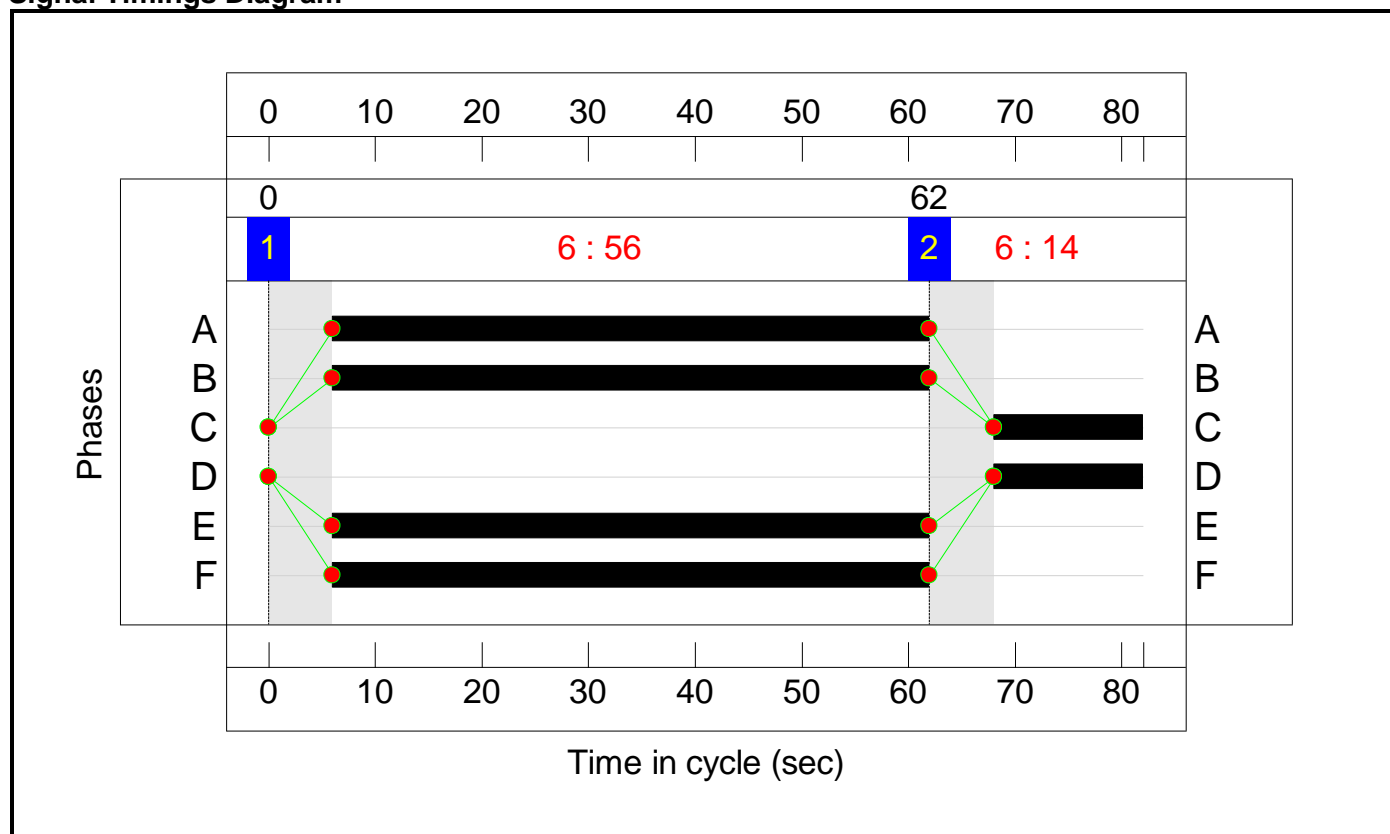
Stage Sequence Diagram



Stage Timings

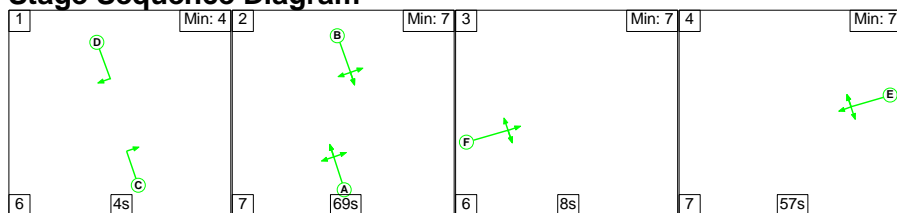
Stage	1	2
Duration	56	14
Change Point	0	62

Signal Timings Diagram



C2

Stage Sequence Diagram

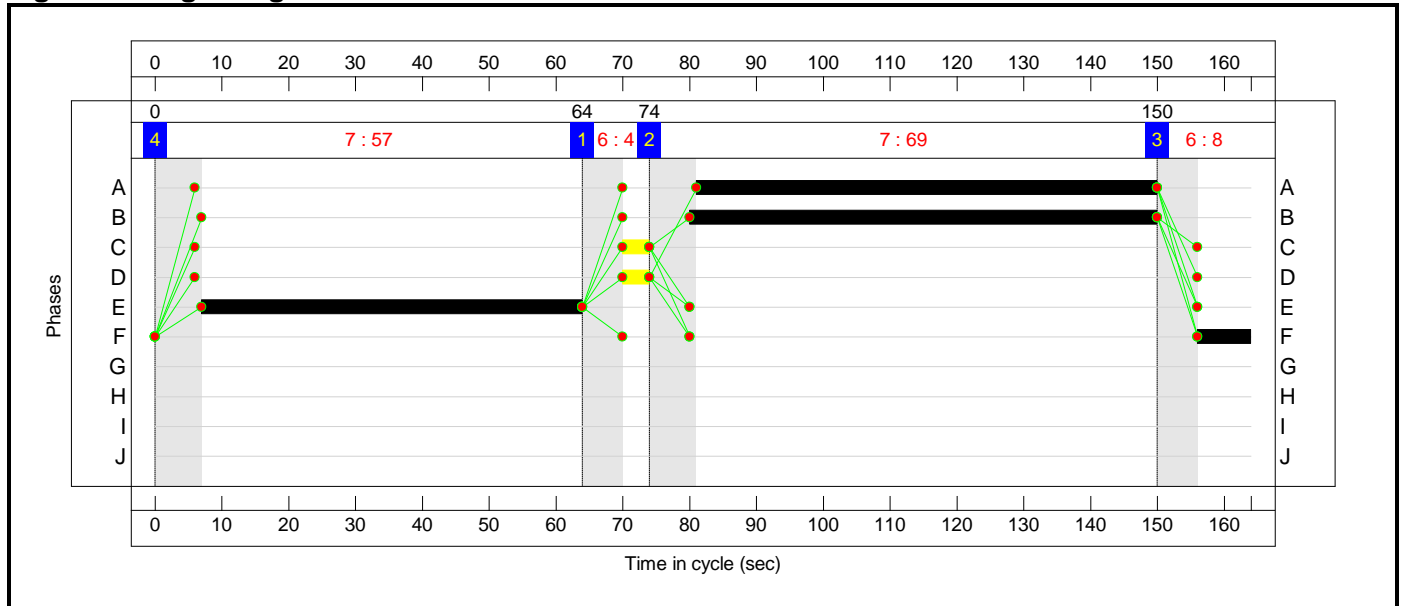


Full Input Data And Results

Stage Timings

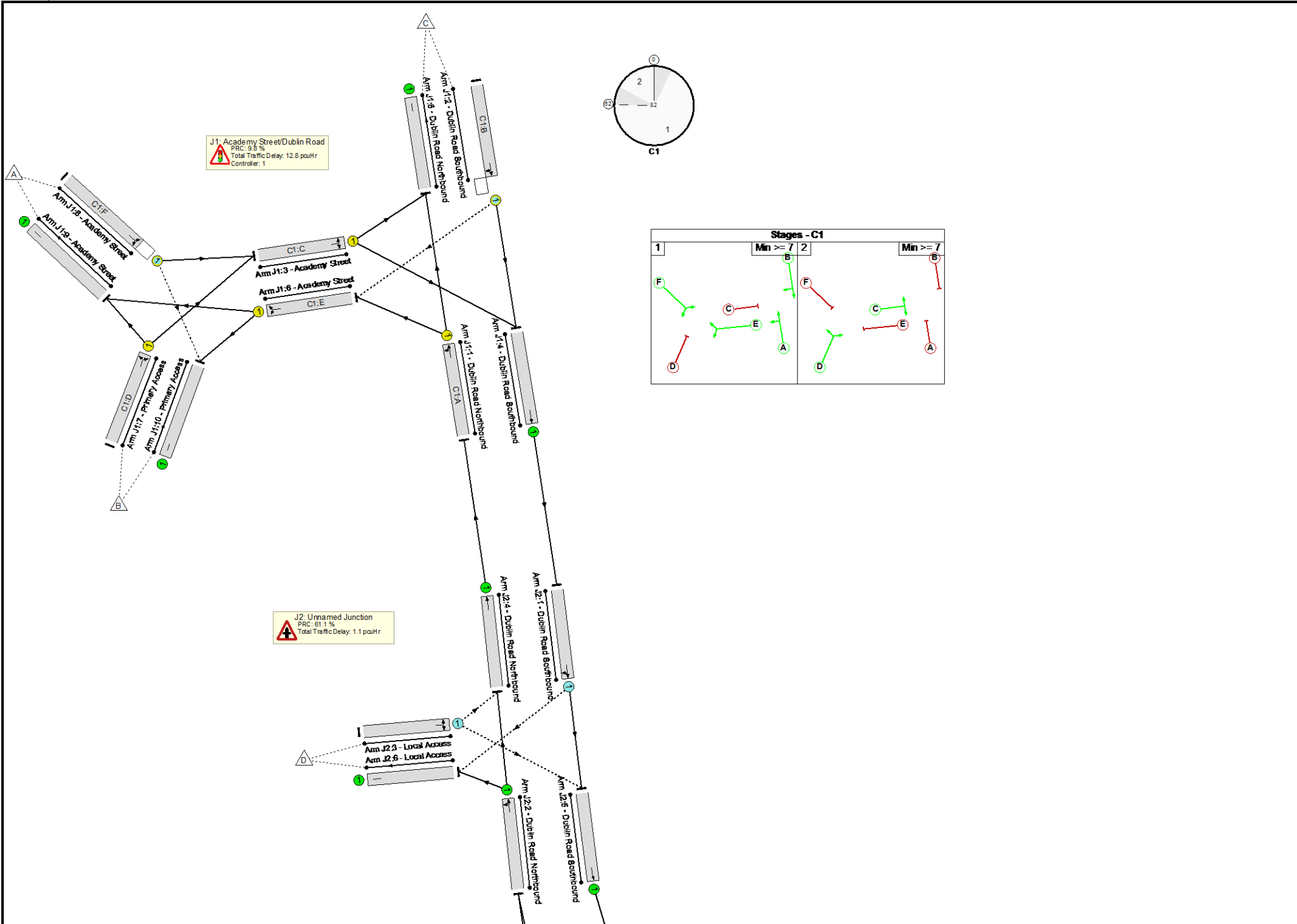
Stage	1	2	3	4
Duration	4	69	8	57
Change Point	64	74	150	0

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.0%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	82.0%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	56	-	1084	1902	1322	82.0%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	56	-	819	1939	1348	60.8%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	14	-	163	1977	362	45.1%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	955	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	56	-	236	2115	1470	16.1%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	14	-	267	1890	346	77.2%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	56	-	119	2015	967	12.3%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	291	2015	2015	14.4%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	168	1890	1890	8.9%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	55.9%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	955	1940	1940	49.2%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1084	1940	1940	55.9%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	232	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1084	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	955	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	81.8%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	69:73	4	725	3500:1965	1290	56.2%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	70:74	4	955	3500:1810	1493	64.0%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	57	-	530	1807:1700	648	81.8%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	8	-	78	1909	105	74.5%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	248	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	836	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	46	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	435	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	402	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	321	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	-	-	180	9	2	32.8	11.5	0.6	44.9	-	-	-	-
J1: Academy Street/Dublin Road	-	-	77	0	2	7.4	5.3	0.0	12.8	-	-	-	-
1/1	1084	1084	-	-	-	2.7	2.2	-	4.9	16.3	17.5	2.2	19.7
2/1	819	819	8	0	0	1.5	0.8	0.0	2.3	10.1	9.8	0.8	10.6
3/1	163	163	-	-	-	0.7	0.4	-	1.1	24.2	1.4	0.4	1.8
4/1	955	955	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	236	236	-	-	-	0.1	0.1	-	0.2	2.6	0.3	0.1	0.4
7/1	267	267	-	-	-	2.4	1.6	-	4.0	53.8	5.8	1.6	7.4
8/1	119	119	69	0	2	0.1	0.1	0.0	0.2	6.4	0.9	0.1	0.9
9/1	291	291	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	168	168	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	1.1	0.0	1.1	-	-	-	-
1/1	955	955	0	0	0	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
2/1	1084	1084	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	955	955	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	102	9	0	25.4	5.0	0.6	30.9	-	-	-	-
1/1+1/2	725	725	86	8	0	7.1	0.6	0.5	8.2	40.8	23.9	0.6	24.5
2/1+2/2	955	955	16	1	0	9.7	0.9	0.0	10.6	39.9	33.9	0.9	34.8
3/2+3/1	530	530	-	-	-	7.0	2.2	-	9.2	62.2	21.5	2.2	23.6
4/1	78	78	-	-	-	1.7	1.3	-	3.0	137.6	3.5	1.3	4.8

Full Input Data And Results

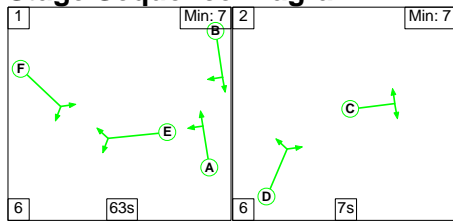
5/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
5/2	836	836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
6/1	46	46	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/2	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1</td> <td style="width: 20%;">PRC for Signalled Lanes (%):</td> <td style="width: 10%;">9.8</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 10%;">12.68</td> <td style="width: 10%;">Cycle Time (s):</td> <td style="width: 10%;">82</td> </tr> <tr> <td></td> <td>C2</td> <td>PRC for Signalled Lanes (%):</td> <td>10.1</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>30.93</td> <td>Cycle Time (s):</td> <td>164</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>9.8</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>44.86</td> <td></td> <td></td> </tr> </tbody> </table>															C1	PRC for Signalled Lanes (%):	9.8	Total Delay for Signalled Lanes (pcuHr):	12.68	Cycle Time (s):	82		C2	PRC for Signalled Lanes (%):	10.1	Total Delay for Signalled Lanes (pcuHr):	30.93	Cycle Time (s):	164			PRC Over All Lanes (%):	9.8	Total Delay Over All Lanes(pcuHr):	44.86		
	C1	PRC for Signalled Lanes (%):	9.8	Total Delay for Signalled Lanes (pcuHr):	12.68	Cycle Time (s):	82																														
	C2	PRC for Signalled Lanes (%):	10.1	Total Delay for Signalled Lanes (pcuHr):	30.93	Cycle Time (s):	164																														
		PRC Over All Lanes (%):	9.8	Total Delay Over All Lanes(pcuHr):	44.86																																

Full Input Data And Results

Scenario 14: 'PM Opening Year + 15 Years With Development Flows' (FG14: 'PM Opening Year + 15 Years With Development Flows', Plan 1: 'Network Control Plan 1')

C1

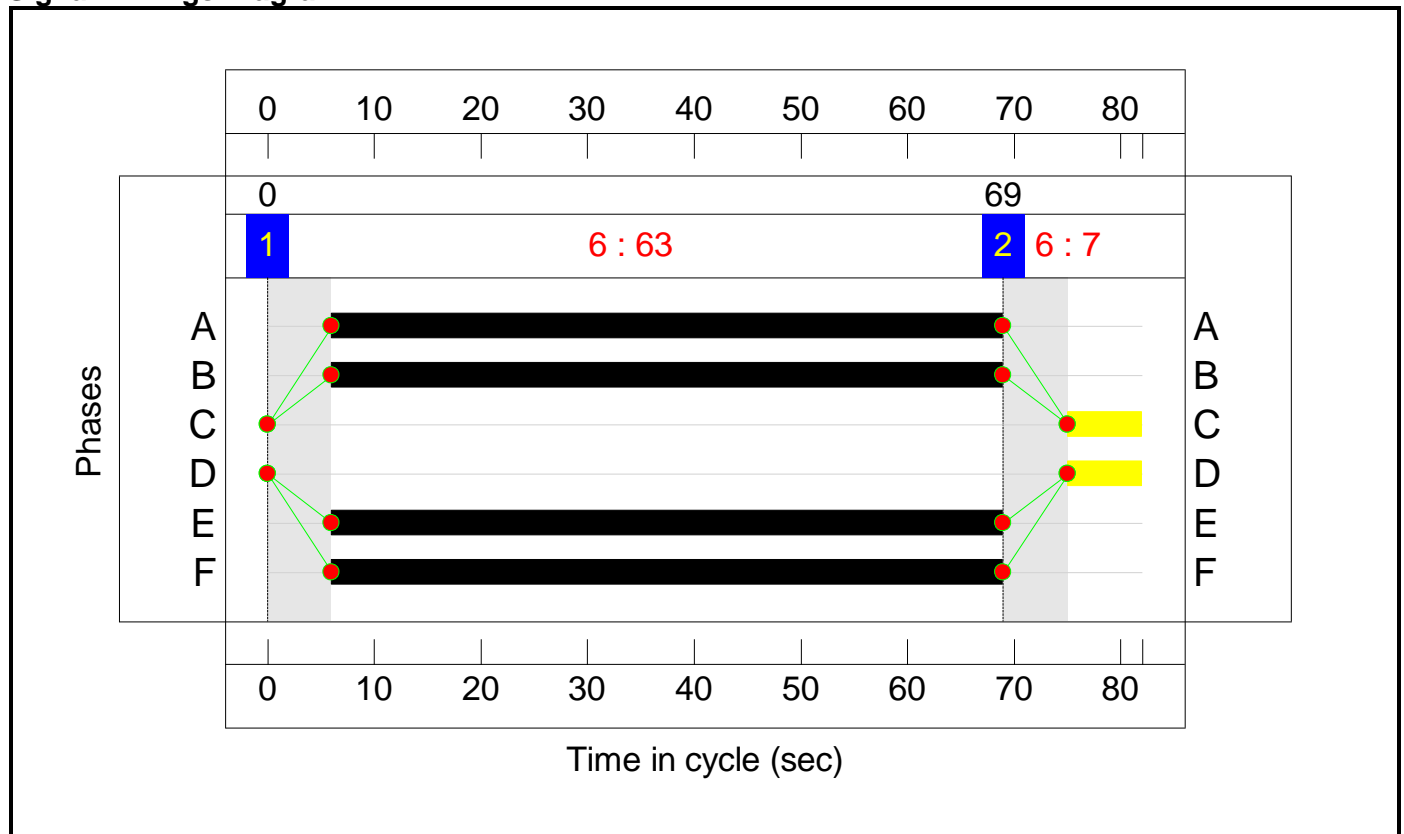
Stage Sequence Diagram



Stage Timings

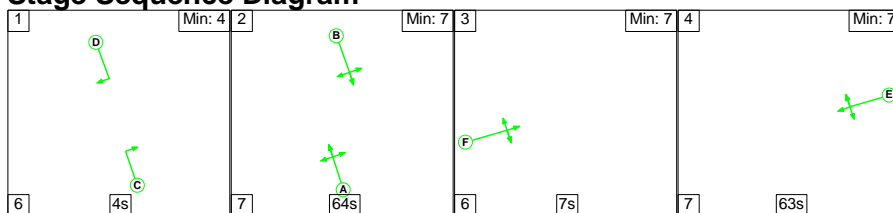
Stage	1	2
Duration	63	7
Change Point	0	69

Signal Timings Diagram



C2

Stage Sequence Diagram

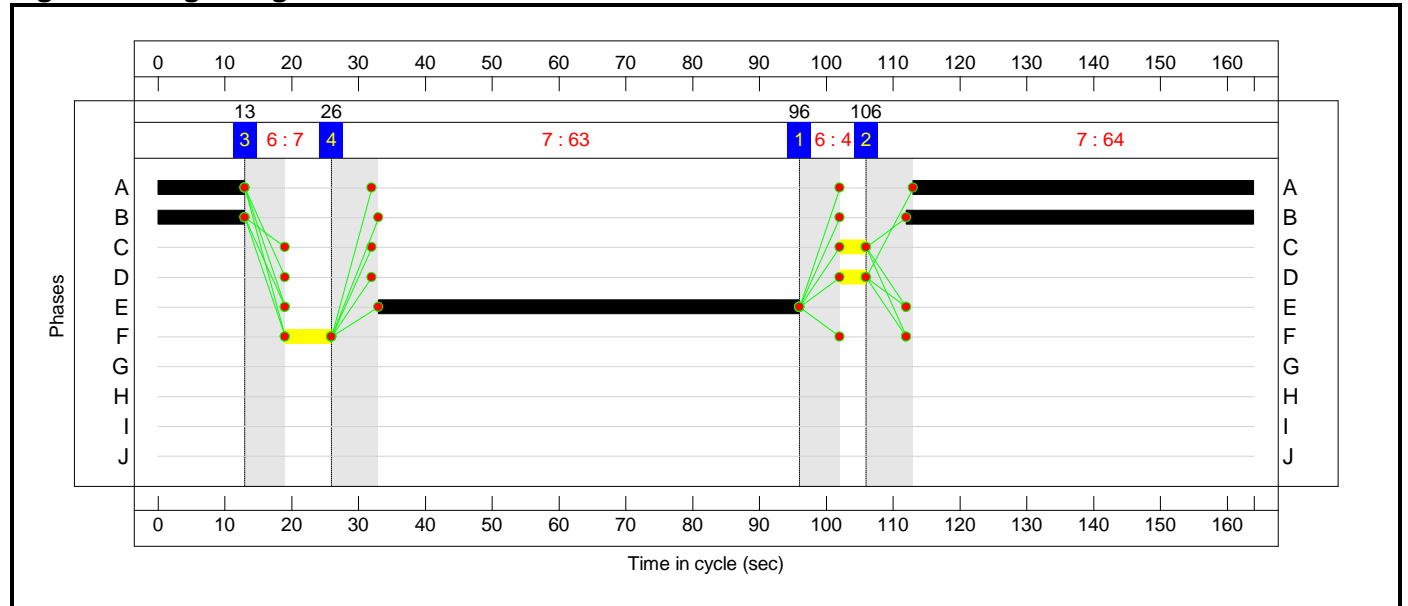


Full Input Data And Results

Stage Timings

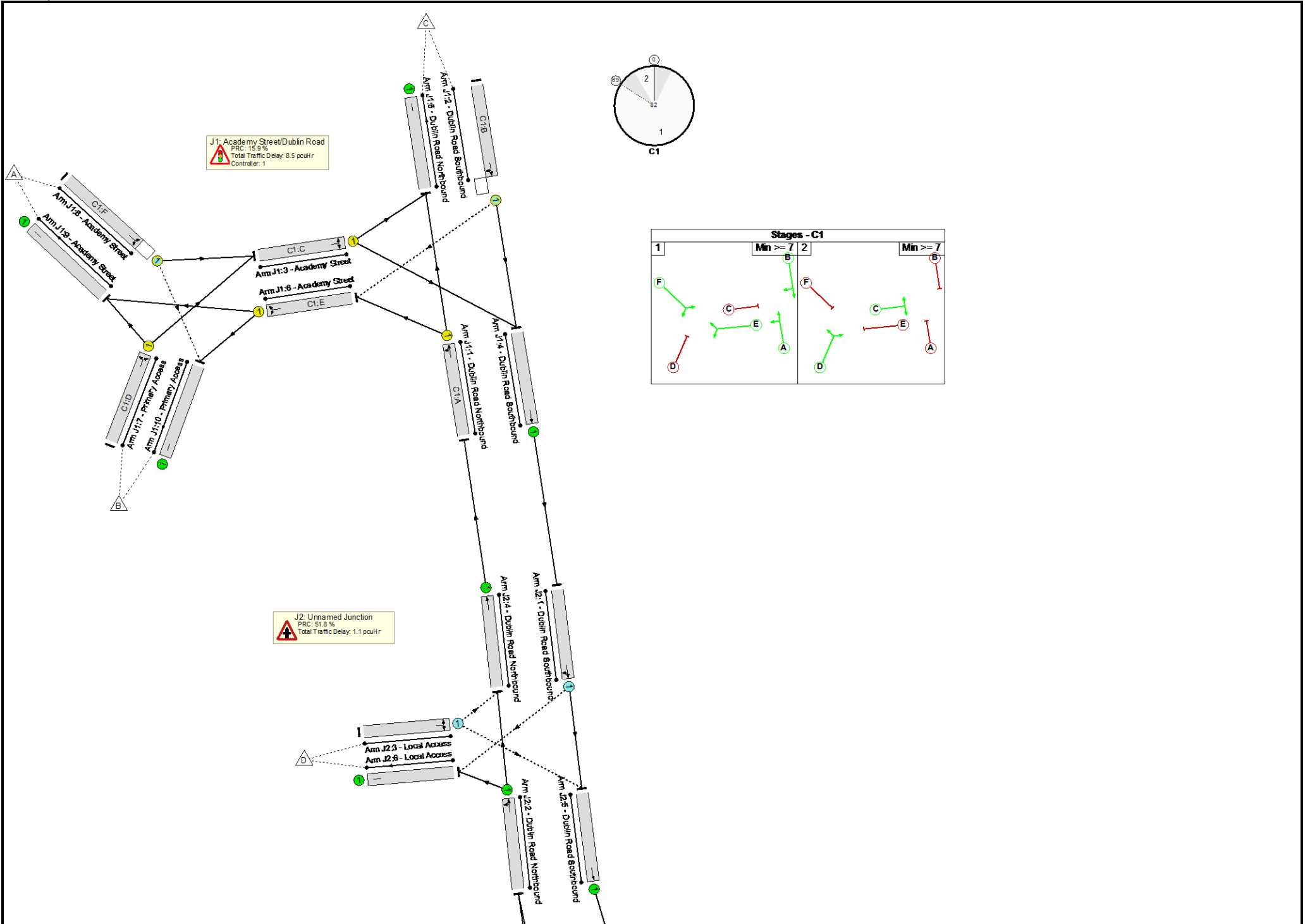
Stage	1	2	3	4
Duration	4	64	7	63
Change Point	96	106	13	26

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
J1: Academy Street/Dublin Road	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
1/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	C1:A		1	63	-	1150	1898	1481	77.6%
2/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	C1:B		1	63	-	734	1937	1512	48.6%
3/1	Academy Street Right Left	U	N/A	N/A	C1:C		1	7	-	133	1972	192	69.1%
4/1	Dublin Road Southbound Ahead	U	N/A	N/A	-		-	-	-	818	Inf	Inf	0.0%
5/1	Dublin Road Northbound	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
6/1	Academy Street Right Left	U	N/A	N/A	C1:E		1	63	-	284	2115	1651	17.2%
7/1	Primary Access Right Left	U	N/A	N/A	C1:D		1	7	-	89	1890	184	48.3%
8/1	Academy Street Left Right	O	N/A	N/A	C1:F		1	63	-	161	2015	1194	13.5%
9/1	Academy Street	U	N/A	N/A	-		-	-	-	231	2015	2015	11.5%
10/1	Primary Access	U	N/A	N/A	-		-	-	-	170	1890	1890	9.0%
J2: Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	59.3%
1/1	Dublin Road Southbound Ahead Right	O	N/A	N/A	-		-	-	-	818	1940	1940	42.2%
2/1	Dublin Road Northbound Ahead Left	U	N/A	N/A	-		-	-	-	1150	1940	1940	59.3%
3/1	Local Access Left Right	O	N/A	N/A	-		-	-	-	0	1940	248	0.0%

Full Input Data And Results

4/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	1150	Inf	Inf	0.0%	
5/1	Dublin Road Southbound Ahead	U	N/A	N/A	-	-	-	-	818	Inf	Inf	0.0%	
6/1	Local Access	U	N/A	N/A	-	-	-	-	0	Inf	Inf	0.0%	
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	N/A	-	-	-	-	-	-	-	-	77.2%	
1/1+1/2	Dublin Road Northbound Ahead Left Right	U+O	N/A	N/A	C2:A	C2:C	1:2	64:68	4	797	3500:1965	1312	60.8%
2/1+2/2	Dublin Road Southbound Right Left Ahead	U+O	N/A	N/A	C2:B	C2:D	1:2	65:69	4	818	3500:1810	1389	58.9%
3/2+3/1	Bothar Sion Right Ahead Left	U	N/A	N/A	C2:E		1	63	-	551	1805:1700	714	77.2%
4/1	Springfield Glen Left Ahead Right	U	N/A	N/A	C2:F		1	7	-	36	1893	92	39.0%
5/1	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	229	Inf	Inf	0.0%	
5/2	Dublin Road Northbound Ahead	U	N/A	N/A	-	-	-	-	921	Inf	Inf	0.0%	
6/1	Springfield Glen	U	N/A	N/A	-	-	-	-	47	Inf	Inf	0.0%	
7/1	Bothar Sion	U	N/A	N/A	-	-	-	-	312	Inf	Inf	0.0%	
8/1	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	407	Inf	Inf	0.0%	
8/2	Dublin Road Southbound	U	N/A	N/A	-	-	-	-	286	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	-	-	148	6	2	29.1	8.6	0.3	38.0	-	-	-	-
J1: Academy Street/Dublin Road	-	-	74	0	2	4.4	4.0	0.0	8.5	-	-	-	-
1/1	1150	1150	-	-	-	1.6	1.7	-	3.3	10.4	14.4	1.7	16.1
2/1	734	734	13	0	0	0.6	0.5	0.0	1.2	5.7	5.7	0.5	6.2
3/1	133	133	-	-	-	1.1	1.1	-	2.2	60.0	2.4	1.1	3.5
4/1	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	284	284	-	-	-	0.1	0.1	-	0.2	2.1	0.3	0.1	0.4
7/1	89	89	-	-	-	0.9	0.5	-	1.3	53.8	1.9	0.5	2.4
8/1	161	161	61	0	2	0.1	0.1	0.0	0.2	4.0	0.8	0.1	0.9
9/1	231	231	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	170	170	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
J2: Unnamed Junction	-	-	0	0	0	0.0	1.1	0.0	1.1	-	-	-	-
1/1	818	818	0	0	0	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
2/1	1150	1150	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7
3/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1150	1150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Dublin Road/Bothar Sion/Springfield Glen	-	-	73	6	0	24.7	3.5	0.3	28.4	-	-	-	-
1/1+1/2	797	797	60	5	0	8.7	0.8	0.2	9.7	43.8	28.6	0.8	29.4
2/1+2/2	818	818	13	1	0	8.7	0.7	0.0	9.5	41.7	29.0	0.7	29.8
3/2+3/1	551	551	-	-	-	6.5	1.7	-	8.2	53.5	21.3	1.7	22.9
4/1	36	36	-	-	-	0.8	0.3	-	1.1	107.2	1.6	0.3	1.9

Full Input Data And Results

5/1	229	229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/2	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	47	47	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	312	312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/2	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table border="0"> <tbody> <tr> <td>C1</td> <td>PRC for Signalled Lanes (%)</td> <td>15.9</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>8.37</td> <td>Cycle Time (s)</td> <td>82</td> </tr> <tr> <td>C2</td> <td>PRC for Signalled Lanes (%)</td> <td>16.6</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>28.42</td> <td>Cycle Time (s)</td> <td>164</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>15.9</td> <td>Total Delay Over All Lanes(pcuHr)</td> <td>38.00</td> <td></td> <td></td> </tr> </tbody> </table>														C1	PRC for Signalled Lanes (%)	15.9	Total Delay for Signalled Lanes (pcuHr)	8.37	Cycle Time (s)	82	C2	PRC for Signalled Lanes (%)	16.6	Total Delay for Signalled Lanes (pcuHr)	28.42	Cycle Time (s)	164		PRC Over All Lanes (%)	15.9	Total Delay Over All Lanes(pcuHr)	38.00		
C1	PRC for Signalled Lanes (%)	15.9	Total Delay for Signalled Lanes (pcuHr)	8.37	Cycle Time (s)	82																												
C2	PRC for Signalled Lanes (%)	16.6	Total Delay for Signalled Lanes (pcuHr)	28.42	Cycle Time (s)	164																												
	PRC Over All Lanes (%)	15.9	Total Delay Over All Lanes(pcuHr)	38.00																														

Appendix E Trip Rates Comparison

Peak Hour Trips					
Trip Generation from TRICS		Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
Usage	Units	Arrivals	Departures	Arrivals	Departures
Houses – .	260	16	50	57	28
Apartments/Duplex– .*	284	53	165	99	53
School**	234	100	54	13	11
Creche***	-	-	-	-	-
Peak Total		168	269	169	92
Two Way Total		437		261	

It can be seen from the above that the total vehicle movements generated by the proposed development will be 168 arrivals and 269 departures in the AM peak (two-way total of 437). The total number of vehicle movements in the PM peak hour will be 169 arrivals and 92 departures (two-way total of 261).

Peak Hour Trips – Superseded					
Trip Generation from TRICS		Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
Usage	Units	Arrivals	Departures	Arrivals	Departures
Houses – .	317	65	202	120	64
Apartments – .*	158	5	11	22	3
Duplex – .	12	1	1	1	1
School**	100	33	24	5	7
Creche***	-	-	-	-	-
Peak Total		104	239	148	75
Two Way Total		343		223	

It can be seen from the above that the total vehicle movements generated by the previous scheme was 104 arrivals and 239 departures in the AM peak (two-way total of 341). The total number of vehicle movements in the PM peak hour was 148 arrivals and 75 departures (two-way total of 223).

Peak Hour Trips – Net Change					
Trip Generation from TRICS		Weekday AM 08:00-09:00		Weekday PM 17:00-18:00	
Usage	Units	Arrivals	Departures	Arrivals	Departures
Houses	-57	-49	-152	-63	-36
Apartments/Duplex	126	48	154	77	50
School*	134	67	30	8	4
Creche	-	-	-	-	-
Peak Total		64	30	21	17
Two Way Total		94		38	

*Trip rates presented at the Pre-Planning Meeting with ABP was for a secondary school which has higher trip rates when compared to a primary school. Refer to Appendix B for details.

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